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PRICE FACTORS IN THE LOS ANGELES MILK MARKET

A statement prepared at the request
of the Director, State Department of Agriculture,
for presentation at the hearing on July 8, 1936,
on the proposed Stabilization and Marketing Plan
for the Los Angeles Milk Marketing Area

by

J. M. Tinley

July, 1936

Contribution of the
Giannini Foundation of Agricultural Economics
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PRICE FACTORS IN THE LOS ANGELES MILK MARKET [1]

J. M. Tinley [2]

Since 1929 there have been several significant changes in the relative importance of the factors affecting prices of market milk in Los Angeles. Prior to 1929 the Los Angeles milk market was very largely isolated and not readily available to adjacent dairy areas, especially the southern San Joaquin Valley. High transportation and handling costs, the delay in getting milk from these areas to Los Angeles, and the non-availability of sufficient supplies of milk of suitable quality reduced the possibility of competition from these areas to a minimum. Production of milk in the four southern counties, Los Angeles, Orange, Riverside, and San Bernardino, was barely sufficient to meet market-milk consumption requirements. Although at certain times of the year there were small supplies of surplus milk available from local production for other purposes, the bulk of market cream and manufacturing milk consumed in the four counties was shipped in from adjacent territories.

Under the circumstances, prices to producers of market milk in the four counties were influenced largely by local production costs and production conditions. These prices were not nearly as closely related to prices of butter and manufacturing milk as were producer prices in the East Bay and San Francisco markets, which drew their market milk supplies from dense dairy areas.

This situation in the Los Angeles territory was both an advantage and a source of danger. Stable production and price conditions could be maintained only as long as local production of milk conformed closely to local consumption requirements of market milk and as long as outside areas were precluded by economic and technical conditions from shipping market milk into the Los Angeles milk market.

Development of Surplus.-- Between 1925 and 1929 total consumption of market milk in the four counties had increased somewhat more rapidly than production of milk (table 1). Towards the end of 1929 and early in 1930, however, it became apparent that production was increasing more rapidly than consumption, an indication that prices prevailing in the area in 1930 were too high in relation to costs. Leland Spencer in his study of the Los Angeles milk market estimated that a pound of market milk would purchase 71 pounds of feed (the most important cost item) in 1930 as compared with only 56.6 pounds in 1929 and 59.9 pounds in 1928. [3] This resulted in a considerable surplus of locally produced milk, which

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[1] This manuscript was prepared largely as a supplement and extension to Spencer's study of the Los Angeles milk market (California Agr. Exp. Sta. Bul. 513. 1931). The main purpose of this manuscript is to bring up to date some of the more significant tables and figures related to producer prices appearing in the above bulletin and to analyze the economic effects of some of the recent developments in the Los Angeles milk market.

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[3] Spencer, Leland. An economic survey of the Los Angeles milk market. California. Agr. Exp. Sta. Bul. 513:99. Table 54. 1931.

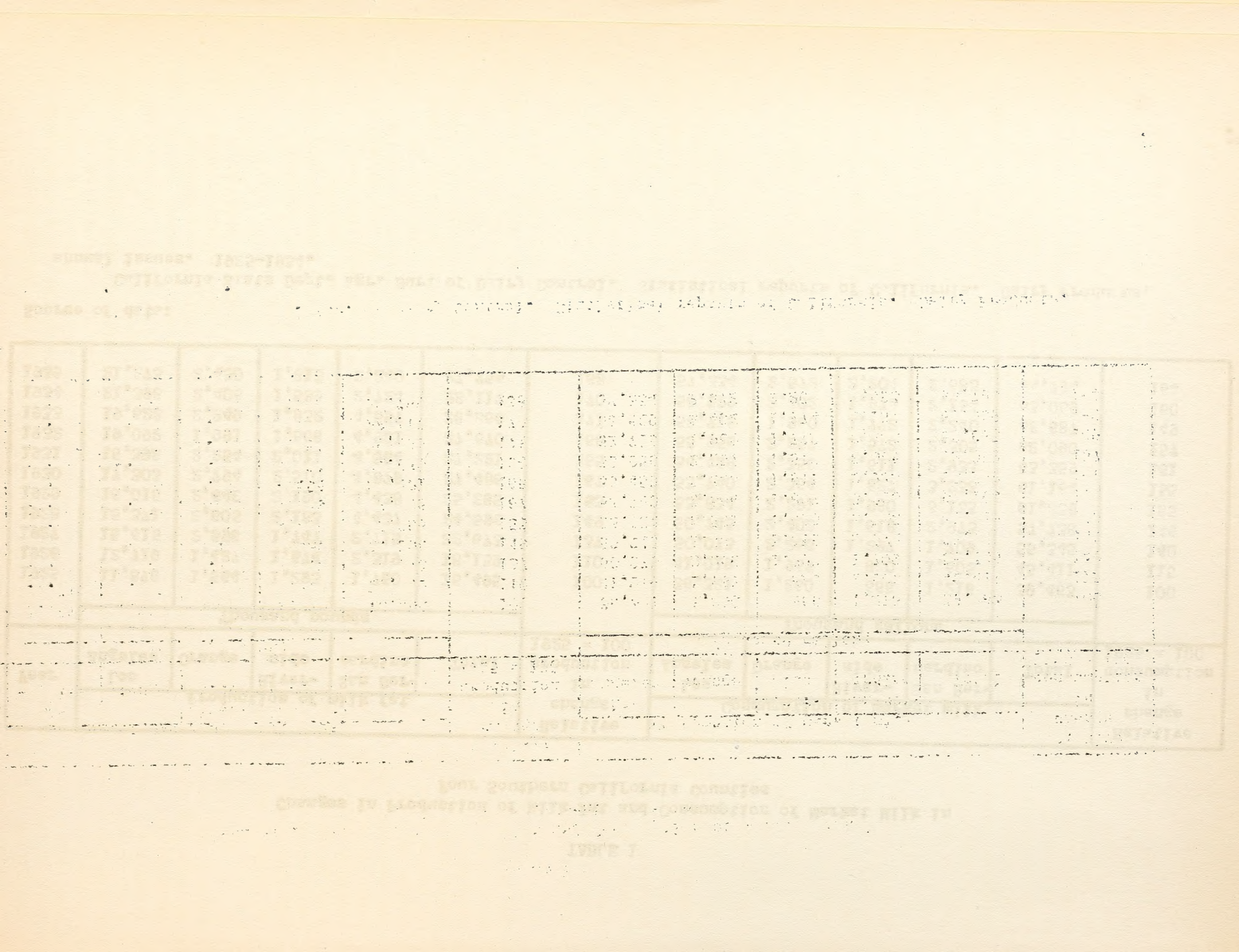
TABLE 1

Changes in Production of Milk Fat and Consumption of Market Milk in Four Southern California Counties

Year	Production of milk fat					Relative change in production 1925 = 100	Consumption of market milk					Relative change in consumption 1925 = 100
	Los Angeles	Orange	River-side	San Ber-nardino	Total		Los Angeles	Orange	River-side	San Ber-nardino	Total	
	Thousand pounds						Thousand gallons					
1925	11,878	1,564	1,293	1,760	16,495	100	36,321	1,260	666	1,216	39,463	100
1926	12,719	1,427	1,674	2,319	18,139	110	41,019	1,967	820	1,605	45,411	115
1927	15,615	2,596	1,747	2,715	22,673	137	50,073	2,266	1,297	1,709	55,345	140
1928	15,371	2,605	2,183	4,437	24,596	149	50,745	2,402	1,618	2,973	57,738	146
1929	16,015	2,642	2,190	4,438	25,285	153	53,834	2,291	1,980	3,133	61,238	155
1930	17,303	2,794	2,510	4,879	27,486	167	53,740	2,364	1,827	3,233	61,164	155
1931	18,392	2,254	2,011	4,564	27,221	165	56,459	2,356	1,611	2,933	63,359	161
1932	19,092	1,991	1,666	4,921	27,670	168	55,956	2,257	1,572	2,305	62,090	157
1933	19,628	2,249	1,832	4,557	28,266	171	52,715	1,960	1,772	2,240	58,687	149
1934	21,398	2,406	1,589	2,724	28,117	170	56,529	2,402	1,974	2,164	63,069	160
1935	21,273	2,430	1,813	2,240	27,756	168	57,334	2,572	2,204	2,683	64,794	164

Source of data:

California State Dept. Agr. Bur. of Dairy Control. Statistical reports of California, Dairy Products, annual issues. 1925-1934.



had to be disposed of at lower prices. As nearly all distributors had developed supplies of market cream in the San Joaquin Valley and other adjacent dairy areas, they were not disposed to use surplus milk for market cream purposes. The surplus milk fat was generally churned into butter. This served to reduce considerably the average price received by producers, many of whom were willing to sell their surplus milk to certain distributors at prices somewhat higher than the surplus milk prices. These distributors, obtaining their supplies at lower prices than competitors who paid the base buying price, were able to cut prices to stores and consumers. This forced a general downward revision of prices to producers in June, 1930, several months earlier than similar reductions in other major milk markets in California.

The decreased base buying price for market milk in 1930, together with further reductions in 1931, had the effect of reducing total production somewhat in 1931, and as total volume of consumption in 1931 was somewhat greater than in 1930, the relative position between production and consumption was somewhat improved although a considerable surplus was still available.

Meanwhile, however, several developments were taking place, which tended to aggravate the situation still further and which contributed largely to the demoralized marketing conditions in Los Angeles since 1930.

Development of Grade A Milk for Market Cream.-- Up to about 1931, Kern County was the only area in the southern San Joaquin Valley which had any excess of Grade A milk. More Grade A milk was produced than was needed for consumption purposes in the county. In September, 1928, a distributor in Los Angeles established a plant just south of Bakersfield to assemble, cool, and dispatch Grade A milk to the main plant in Los Angeles. In December, 1930, another plant in Kern County began shipping small quantities of Grade A milk to Los Angeles and a third plant commenced shipping in 1931.

From January, 1931, the Los Angeles Health Department required that milk for market cream should comply with the same sanitary conditions as Grade A market milk. As there was insufficient milk of suitable quality available in the San Joaquin, Imperial Valley, and Guadalupe areas, distributors with creameries in these areas had to pay producers a premium over manufacturing milk prices in order to induce them to meet the higher production requirements. During the first three months of 1931 the premium over manufacturing milk prices paid to producers in the southern San Joaquin Valley (Kern and Tulare counties) averaged 16 cents per pound of milk fat. In April of that year the premium was reduced to 10 cents per pound of milk fat and further reductions brought the average premium for the year to about 10 cents. During the next few years the premium was further reduced, averaging about 4½ cents in 1934, 6 cents in 1935, and 5 cents during the first four months of 1936 (table 2 and figures 1 and 2). An additional premium of about 2 cents was paid to producers who had mechanical coolers.

The development of a large volume of Grade A milk in the San Joaquin Valley and Santa Barbara and Imperial counties meant that a supplementary supply of milk was available from 1931 onwards, which could be shipped to Los Angeles whenever the differential between Grade A milk prices in the San Joaquin Valley (especially Kern and Tulare counties) and in Los Angeles exceeded the approximate cost of handling and transporting milk from the valley to Los Angeles. In 1928 the differential between market milk in Los Angeles and manufacturing milk in Tulare was only 23.2 cents per pound of milk fat. In 1930 it had increased to 30.0 cents and in the next two years averaged over 33.5 cents. Spencer estimated that it would be economical to ship milk from Kern County to Los Angeles, whenever the buying price per pound of milk fat for milk in Los Angeles exceeded the

TABLE 2

Market Milk Prices in Los Angeles and Grade A Milk
and Manufacturing Milk Prices in Tulare
(Cents per pound of milk fat -- f.o.b. plant)

Year and month	Market milk, Los Angeles	Manufacturing milk, Tulare	Grade A milk, Tulare	Wholesale price of butter, Los Angeles	Differentials between		
					Manufacturing milk and market milk	Market milk and Grade A milk	Grade A milk and manufacturing milk
	1	2	3	4	5	6	7
1928							
January	88.0	63.5		48	24.5		
February	88.0	61.5		45	26.5		
March	88.0	59.5		44	28.5		
April	85.0	56.5		41	28.5		
May	85.0	58.0		43	27.0		
June	85.0	59.0		43	26.0		
July	85.0	61.5		46	23.5		
August	85.0	64.0		48	21.0		
September	85.0	67.0		52	18.0		
October	85.0	67.5		52	17.5		
November	85.0	66.5		50	19.0		
December	85.0	66.5		51	18.5		
Average	86.0	62.5		47	23.2		
1929							
January	90.0	58.5		46	31.5		
February	87.5	59.5		48	28.0		
March	88.0	57.0		45	31.0		
April	88.0	56.5		43	31.5		
May	87.0	58.5		46	28.5		
June	87.0	58.0		46	29.0		
July	90.0	58.5		46	31.5		
August	90.0	60.0		47	30.0		
September	90.0	62.5		50	27.5		
October	90.0	62.5		50	27.5		
November	90.0	62.0		49	28.0		
December	90.0	54.5		43	35.5		
Average	89.0	59.0		47	30.0		

(Table 2 continued on next page)

Table 2 continued.

Year and month	Market milk, Los Angeles	Manufacturing milk, Tulare	Grade A milk, Tulare	Wholesale price of butter, Los Angeles	Differentials between		
					Manufacturing milk and market milk	Market milk and Grade A milk	Grade A milk and manufacturing milk
	1	2	3	4	5	6	7
1930							
January	90.0	52.5		36	37.5		
February	90.0	53.5		38	37.5		
March	90.0	51.5		38	38.5		
April	90.0	53.5		39	36.5		
May	88.0	51.0		37	37.0		
June	86.0	46.8		34	39.2		
July	80.0	47.5		34	32.5		
August	80.0	51.5		37	28.5		
September	80.0	54.0		39	26.0		
October	80.0	51.5		37	28.5		
November	80.0	49.0		34	31.0		
December	80.0	44.5		33	35.5		
Average	84.5	50.5		36	33.9		
1931							
January	72.0	35.5	51.5	26	36.5	20.5	16.0
February	70.0	36.8	53.2	28	33.2	16.8	16.5
March	70.0	37.0	53.0	28	33.0	17.0	16.0
April	70.0	33.0	43.0	24	37.0	27.0	10.0
May	70.0	31.0	42.0	25	39.0	28.0	11.0
June	70.0	30.5	41.5	25	39.5	28.5	11.0
July	70.0	31.5	43.0	26	38.5	27.0	11.5
August	65.0	32.0	43.5	30	33.0	21.5	11.5
September	65.0	37.0	43.0	31	28.0	22.0	6.0
October	65.0	37.5	41.5	32	27.5	23.5	4.0
November	65.0	37.5	41.5	32	27.5	23.5	4.0
December	65.0	35.0	38.5	30	30.0	26.5	3.5
Average	68.0	34.5	44.5	28	33.6	23.5	10.0
1932							
January	60.0	30.0	33.0	24	30.0	27.0	3.0
February	60.0	29.5	32.5	24	30.5	27.5	3.0
March	60.0	28.0	31.0	23	32.0	29.0	3.0
April	45.0	25.0	32.0	20	20.0	13.0	7.0
May	45.0	24.5	31.5	19	20.5	13.5	7.0

(Table 2 continued on next page)

Table 2 continued.

Year and month	Market milk, Los Angeles	Manufacturing milk, Tulare	Grade A milk, Tulare	Wholesale price of butter, Los Angeles	Differentials between		
					Manufacturing milk and market milk	Market milk and Grade A milk	Grade A milk and manufacturing milk
	1	2	3	4	5	6	7
1932 (cont'd)							
June	50.0	23.0	30.0	18	27.0	20.0	7.0
July	50.0-30.0	23.0	27.0	19	27.0- 7.0	23.0- 3.0	4.0
August	30.0-55.0	26.0	29.0	21	4.0-29.0	1.0-26.0	3.0
September	55.0	27.0	30.0	21	28.0	25.0	3.0
October	55.0	27.0	30.0	22	28.0	25.0	3.0
November	55.0	30.0	33.0	26	25.0	22.0	3.0
December	55.0	31.5	34.5	27	23.5	20.5	3.0
Average	52.0	27.0	31.0	22	24.8	24.8	4.0
1933							
January	55.0	25.5	28.5	20	29.5	26.5	3.0
February	55.0	23.0	26.5	19	32.0	28.5	3.5
March	55.0	24.0	27.0	19	31.0	28.0	3.0
April	40.0	25.0	28.0	21	15.0	12.0	3.0
May	31.0	28.5	31.0	23	2.5	0.0	2.5
June	45.0	29.0	31.5	23	16.0	13.5	2.5
July	45.0-52.0	31.0	34.0	24	14.0-21.0	11.0-18.0	3.0
August	52.0-55.0	28.5	35.0	21	23.5-26.5	17.0-20.0	6.5
September	55.0	29.5	36.0	21	25.5	19.0	6.5
October	55.0	30.0	35.5	21	25.0	19.5	5.5
November	55.0-51.0	29.5	34.5	22	25.5-21.5	20.5-16.5	5.0
December	51.0	26.0	30.0	20	25.0	21.0	4.0
Average	50.0	27.5	31.5	21	21.8	18.5	4.0
1934							
January	51.0	26.5	30.5	19	24.5	20.5	4.0
February	51.0	32.2	36.5	24	18.8	14.5	4.2
March	51.0	31.8	36.5	23	19.2	14.5	4.8
April	51.0	28.8	34.5	21	22.2	16.5	5.8
May	51.0	29.5	34.0	21	21.5	17.0	4.5
June	55.0	31.0	34.5	22	24.0	20.5	3.5
July	55.0	32.0	36.5	23	23.0	18.5	4.5
August	55.0-61.0	36.0	40.5	27	19.0-25.0	14.5-20.5	4.5
September	61.0	37.5	42.5	28	23.5	18.5	5.0
October	67.0	38.8	43.5	29	28.2	23.5	4.8
November	67.0	43.0	47.5	31	24.0	19.5	4.5

(Table 2 continued on next page)

Table 2 continued.

Year and month	Market milk, Los Angeles	Manufacturing milk, Tulare	Grade A milk, Tulare	Wholesale price of butter, Los Angeles	Differentials between		
					Manufacturing milk and market milk	Market milk and Grade A milk	Grade A milk and manufacturing milk
	1	2	3	4	5	6	7
1934 (cont'd)							
December	67.0	41.2	45.5	31	25.8	21.5	4.2
Average	57.0	34.0	38.5	25	23.1	18.5	4.5
1935							
January	67.0	42.0	48.0	33	25.0	19.0	6.0
February	67.0	45.0	51.0	35	22.0	16.0	6.0
March	55.0	39.5	45.5	30	15.5	9.5	6.0
April	52.5	38.0	44.0	29	14.5	8.5	6.0
May	52.5	37.0	43.0	27	15.5	9.5	6.0
June	52.5	35.5	41.5	27	17.0	11.0	6.0
July	53.4	35.5	41.5	26	17.9	11.9	6.0
August	52.5	36.8	43.0	28	15.8	9.5	6.2
September	52.5	38.5	44.5	28	14.0	8.0	6.0
October	52.5	41.0	47.0	31	11.5	5.5	6.0
November	52.5-55.0	45.2	51.2	34	7.2- 9.8	1.2- 3.8	6.0
December	55.0	47.0	53.0	35	8.0	2.0	6.0
Average	55.5	40.0	46.0	30	15.4	9.4	6.0
1936							
January	55.0-52.5	47.0	52.0	35	8.0- 5.5	3.0- 0.5	5.0
February	52.5	47.0	52.0	35	5.5	0.5	5.0
March	52.5	45.5	50.5	31	7.0	2.0	5.0
April	52.5	45.0	50.0	31	7.0	2.5	5.0
May							
June							
July							
August							
September							
October							
November							
December							
Average							

Source of data:

Col. 1: Based on data supplied by Mr. Martin H. Blank.

Cols. 2 and 3: Based on data supplied by creameries in Tulare County.

(Table continued on next page)

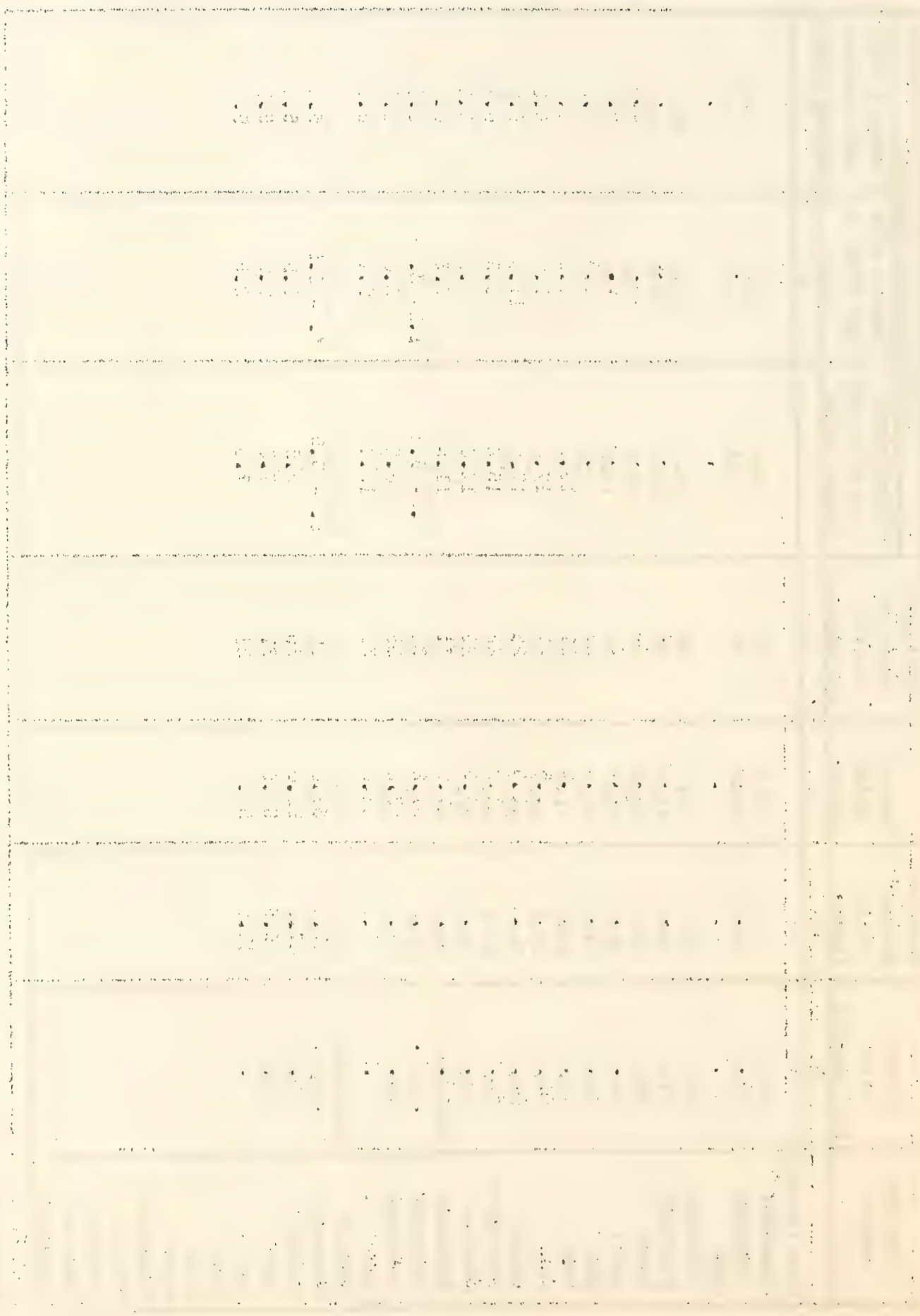


Table 2 continued.

Sources of data (cont'd.):

Col. 4: Federal-State Market News Service. Daily butter prices at Los Angeles.
Col. 5: Col. 1 less col. 2.
Col. 6: Col. 1 less col. 3.
Col. 7: Col. 3 less col. 2.

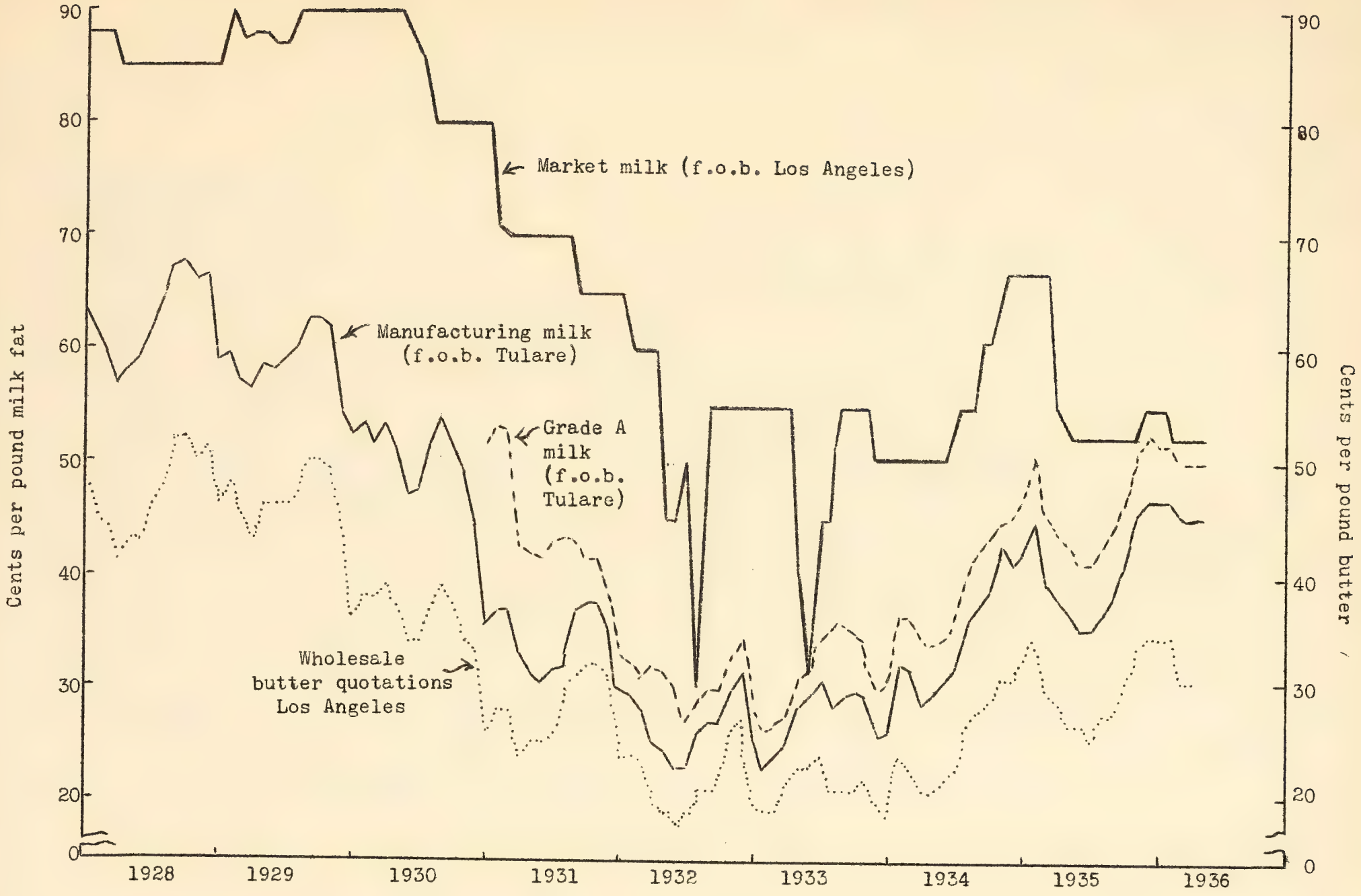
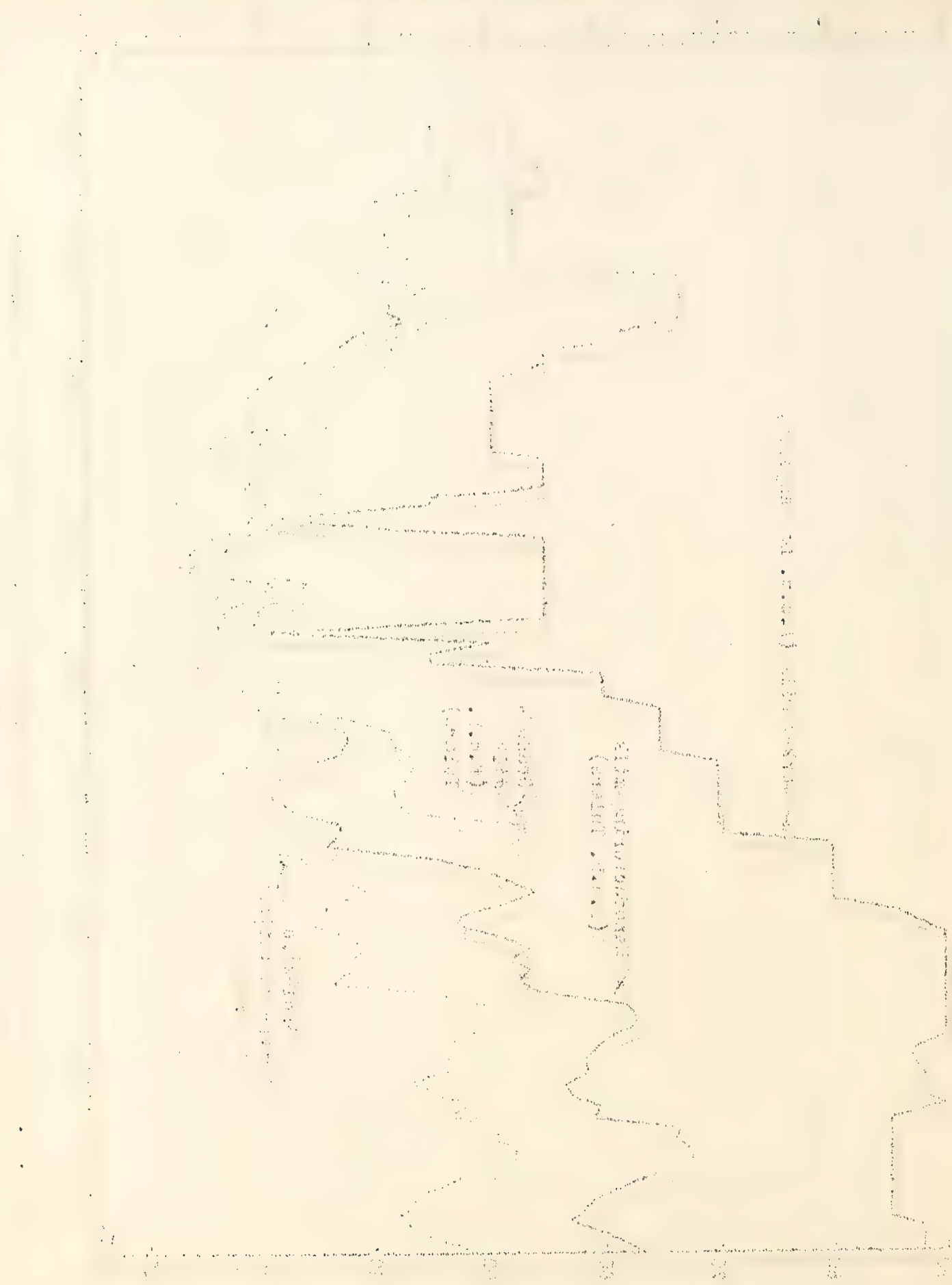


Fig. 1.-- Producer prices for milk and wholesale butter quotations in Los Angeles.



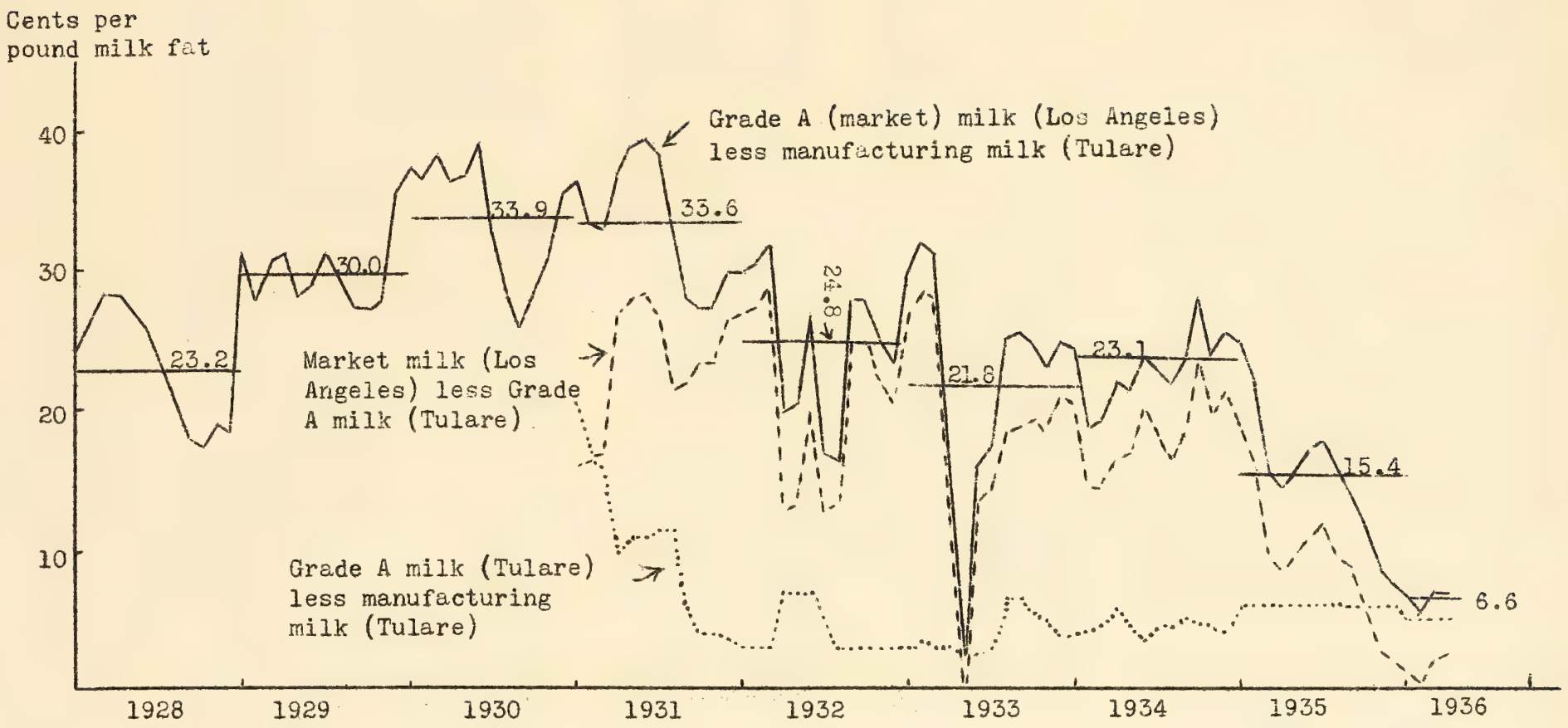
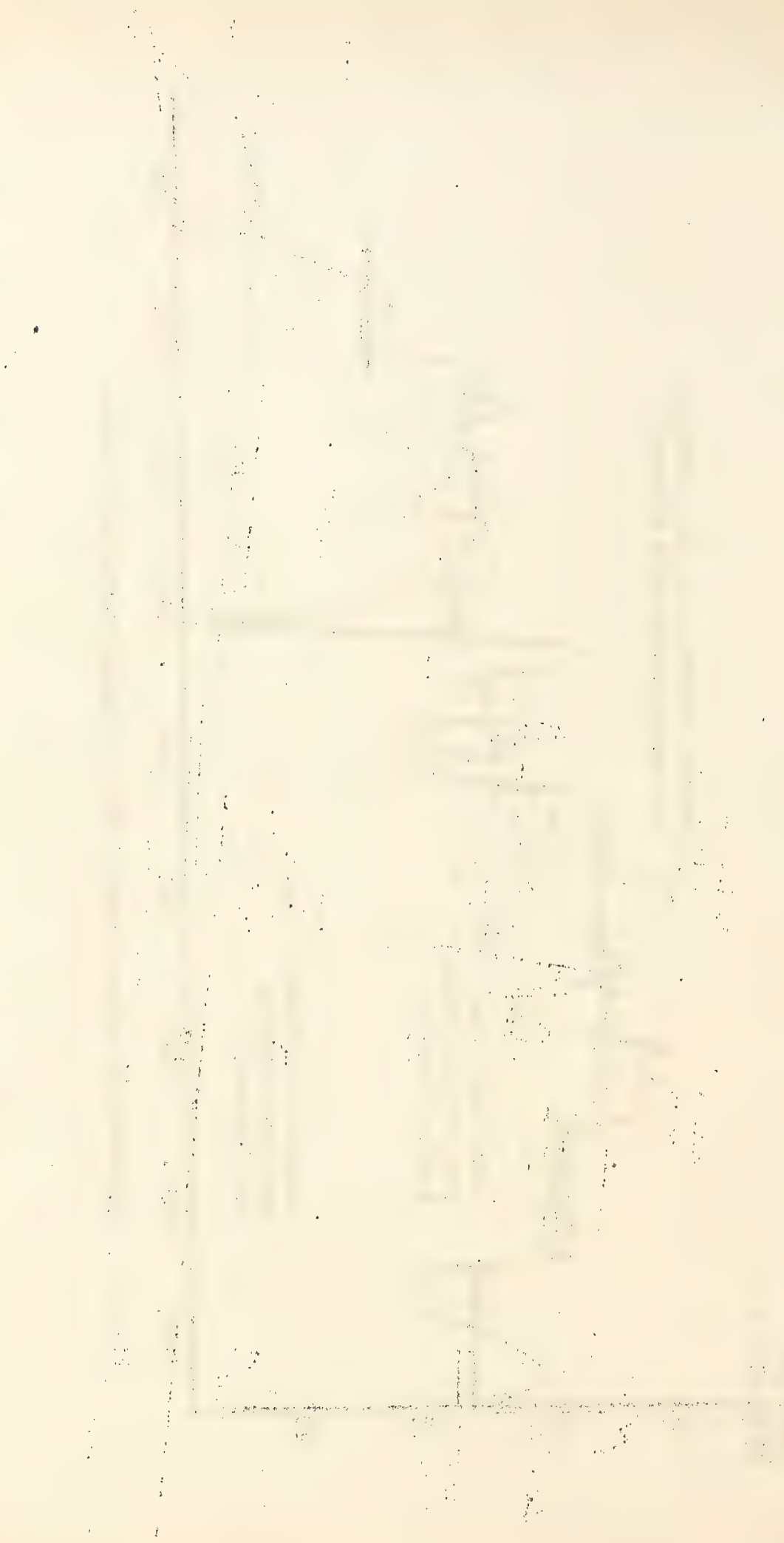


Fig. 2.-- Differentials between Grade A milk and manufacturing milk prices.



wholesale butter quotation in Los Angeles by 32 cents. 4/ In his estimate Spencer anticipated that producers in Kern County would receive a premium of 21 cents 5/ over butter quotations (f.o.b. plant) and that transportation and handling costs from Bakersfield to Los Angeles would be about 11 cents per pound of milk fat. In 1931 the premium received by Grade A milk producers in Tulare County over the Los Angeles wholesale butter quotation was only 16½ cents (f.o.b. plant). In 1932 it was only 11 cents, 10½ cents in 1933, 13½ cents in 1934, and 16 cents in 1935. Transportation costs on milk from Tulare to Los Angeles are only 1 cent per pound of milk fat higher than from Bakersfield. Assuming that producers in Kern County receive the full benefit of this difference in transportation costs, the premiums paid to producers in Kern County would average 1 cent higher than in Tulare County. Even with this allowance and with a further premium allowed to producers with mechanical refrigeration, the premiums over butter quotations paid to producers in Kern County averaged substantially less than was anticipated by Spencer.

The decline in these premiums was due to two factors. The first was the drastic decline in prices of butter from the 1929 levels. This reduced the value of overrun and therefore the premium over butter quotations paid to manufacturing milk producers. For instance, in 1929 the average price received by manufacturing milk producers per pound of milk fat was 12 cents higher than the Los Angeles wholesale butter quotation. In 1931 the premium was only 6½ cents, in 1932 only 5 cents, and in 1933 about 6 cents. Premiums paid to producers of Grade A cream would tend to be reduced by the same absolute amounts.

The second factor responsible for the reduction of the premium was that the competition between milk from the southern San Joaquin Valley and milk produced in the four counties adjacent to and including Los Angeles brought about a substantial reduction in the premiums over manufacturing milk paid to producers of Grade A milk in the San Joaquin Valley. For instance, in 1931 producers of Grade A milk in Tulare County received an average of 10 cents a pound of milk fat more than producers of manufacturing milk. In 1932, 1933, and 1934 the difference was only about 4 cents (table 2).

By the end of 1931 shipments of Grade A market milk to Los Angeles had reached considerable proportions. Distributors in Los Angeles acquiring this milk at prices below those paid by other distributors, who purchased their supplies from local producers, were able to cut prices or to give various concessions to their trade, and so expand their volume of business. The other distributors, in order to meet this competition, were forced to lower prices paid to local producers. Distributors obtaining supplies from Kern County then lowered the premium paid to producers shipping to their plants and were thus able to reestablish their price advantage in Los Angeles, until the other distributors buying from local producers were able to force a further reduction in producer prices. This seesaw competition continued until prices of market milk in Los Angeles were reduced to extremely low levels and also until the premiums paid to Grade A producers were barely sufficient to induce them to continue production of Grade A milk.

4/ Spencer, Leland. An economic survey of the Los Angeles milk market. California Agr. Exp. Sta. Bul. 513:28. Table 11. 1931.

5/ Spencer estimated a price f.o.b. ranch of 18 cents plus 3 cents hauling cost from ranch to county plant. This gives a premium f.o.b. plant of 21 cents.

Improvement in Transportation and Roads.-- The development of high-speed and refrigerated trucks and the later completion of the low level highway over the Tehachapi Mountains served to reduce the time and cost of transporting milk from the San Joaquin Valley and other dairy areas to Los Angeles, giving distributors obtaining supplies of milk from these areas a still greater price advantage over producers obtaining milk from the four southern California counties. These factors have definitely and permanently destroyed the isolation of the Los Angeles milk market. It is probable that in the future the southern San Joaquin Valley will be an integral part of the Los Angeles milk market and that the separation of Grade A milk for market milk and Grade A milk for cream is no longer justified on purely economic grounds. Prices paid for Grade A milk both north and south of the Tehachapi Mountains will be closely related. Variations in prices received by producers in the different areas will depend largely upon differences in transportation costs. It follows, therefore, that prices received by producers in the four southern counties will in the future bear a much closer relation to prices received by manufacturing-milk producers than they did prior to 1929.

Producers in the four southern counties and in the San Joaquin Valley, as well as distributors, were slow to recognize the fact that the improvements in transportation conditions and the development of supplies of Grade A milk in the San Joaquin Valley have virtually extended the Los Angeles milk shed to Fresno County and have merged the market milk and market cream sheds.[6] A separation of Grade A milk for market milk and market cream is still made. Surplus market milk in the four southern counties is still manufactured into butter and other dairy by-products instead of being used for market cream -- a cause of continual friction not only between producers and distributors but between groups of producers and groups of distributors.

Distributors and producers are fully aware of the situation and are anxious to develop satisfactory means to meet the changed conditions. One of the biggest obstacles is that there is a much greater seasonal variation of production of Grade A milk in the San Joaquin Valley than in the four southern counties. Moreover, the seasonal variation in the valley conforms rather closely with the seasonal variation of consumption of cream; whereas the more uniform production of milk in the four southern counties conforms rather closely with the uniform consumption of market milk. This factor more than any other appears to be responsible for the continued separation of Grade A milk for market milk and for market cream.

Increase in Number of Distributors.-- During the period 1929 to 1934 there was practically no increase in the number of plants distributing pasteurized milk. The number of separate distributing firms, however, increased materially. This seeming conflict is explained by the fact that several of the larger distributing firms in Los Angeles reduced the number of plants they operated. On the other hand several smaller firms opened up plants.

A very material increase in the number of producer-distributors, however, took place in the four southern counties. Reliable figures are not available as to the numbers of producer-distributors operating each year in the four counties, but it is believed that well over two hundred producers entered into distribution

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[6] Milk and cream from counties north of Fresno County tend to move to the San Francisco and East Bay milk markets.

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of their own milk during the years 1929 to 1933. A large part of the volume handled by these producer-distributors was gained at the expense of the longer established pasteurized milk distributors. A considerable number of producer-distributors developed their volume of business by offering milk to consumers at lower prices than were being charged by the established distributors.

The entrance of a large number of producer-distributors had a twofold effect on the general marketing situation. In the first place, established distributors, seeing their volume of sales decline, tended to cut prices and give special discounts and rebates in order to hold their business. Efforts were made to pass these reduced selling prices back to producers. In the second place a conflict of interest arose between bulk milk producers (those shipping milk in bulk to pasteurizing plants) and producer-distributors. As the latter in the aggregate increased their volume of business and expanded their production accordingly, a larger volume of surplus was thrown back on the bulk milk producers. This tended to reduce the average returns to bulk milk producers and also to strengthen the demands of distributors that producer prices should be lowered.

Bulk milk producers and producer-distributors have not been able to cooperate successfully for any length of time on common industry problems. In addition to this, there was considerable difference of opinion among bulk milk producers themselves. There are three separate bulk milk producers associations in the Los Angeles milk market and a considerable number of producers belong to no association at all. The associations at times have been extremely distrustful of each other and have found it difficult to cooperate on common problems and for the general benefit of producers.

Store Selling of Milk.-- Another complicating factor was the introduction early in 1930 of a store differential of 1 cent per quart below the home-delivered price. At the same time the wholesale price was decreased to 3 cents below the home-delivered price. In 1932 the store differential was increased to 2 cents below the home-delivered price and the wholesale price to $3\frac{1}{2}$ cents below (table 3).

The volume of milk sold through stores increased tremendously in response to these differentials. The greatest benefit of this increase in store sales went to distributors who previously were engaged largely in the wholesale business. Distributors, who were previously dependent upon the home-delivered trade, also experienced a big increase in wholesale sales but their home-delivered sales declined in greater proportion. Most of the longer established distributors found their volume of retail (or home-delivered) sales shrink tremendously, partly as a result of a loss of volume to purely wholesale distributors, partly as a result of an increase in their own wholesale volume, and partly because of a loss of business to producer-distributors.

As total volume and the percentage of retail sales declined, operating costs increased -- especially on retail routes. Retail margins of distribution, however, declined from an average of 7.65 cents in 1928 to 6.65 cents per quart in 1931 to 6.2 cents in 1932 and to 5.8 cents in 1934 (table 3 and figure 3).

Some of the fiercest competition occurred for the wholesale trade of Los Angeles and wholesale margins were very materially reduced during the years 1929 to 1935. In 1928 the average wholesale margin was 5.65 cents per quart; in 1930, 4.3 cents; in 1931, 3.65 cents; in 1932, 2.7 cents; and in 1934, only 2.2 cents. During the first five months of 1936 wholesale margins averaged only about 2.3 cents per quart. Wholesale margins were thus reduced about 50 per cent during the period under review (table 3 and figure 4).

TABLE 3

Market Milk Prices in Los Angeles
(Cents per quart)

Year and month	Price paid to producers	Retail price to consumers*	Wholesale price to stores	Retail margin	Wholesale margin
	1	2	3	4	5
1928					
January	7.6	15.0	13.0	7.4	5.4
February	7.6	15.0	13.0	7.4	5.4
March	7.6	15.0	13.0	7.4	5.4
April	7.3	15.0	13.0	7.7	5.7
May	7.3	15.0	13.0	7.7	5.7
June	7.3	15.0	13.0	7.7	5.7
July	7.3	15.0	13.0	7.7	5.7
August	7.3	15.0	13.0	7.7	5.7
September	7.3	15.0	13.0	7.7	5.7
October	7.3	15.0	13.0	7.7	5.7
November	7.3	15.0	13.0	7.7	5.7
December	7.3	15.0	13.0	7.7	5.7
Average	7.35	15.0	13.0	7.65	5.65
1929					
January	7.7	15.0	15.0	7.3	5.3
February	7.5	15.0	13.0	7.5	5.5
March	7.6	15.0	13.0	7.4	5.4
April	7.6	15.0	13.0	7.4	5.4
May	7.5	15.0	13.0	7.5	5.5
June	7.5	15.0	13.0	7.5	5.5
July	7.7	15.0	13.0	7.3	5.3
August	7.7	15.0	13.0	7.3	5.3
September	7.7	15.0	13.0	7.3	5.3
October	7.7	15.0	13.0	7.3	5.3
November	7.7	15.0	13.0	7.3	5.3
December	7.7	15.0	13.0	7.3	5.3
Average	7.6	15.0	13.0	7.4	5.4
1930					
January	7.7	15.0	13.0	7.3	5.3
February	7.7	15.0	13.0	7.3	5.3
March	7.7	15.0	13.0	7.3	5.3
April	7.7	15.0	12.0	7.3	4.3
May	7.6	15.0	12.0	7.4	4.3
June	7.6	15.0	12.0	7.4	4.3
July	6.9	14.0	11.0	7.1	4.1
August	6.9	14.0	11.0	7.1	4.1
September	6.9	14.0	11.0	7.1	4.1
October	6.9	14.0	11.0	7.1	4.1
November	6.9	14.0	11.0	7.1	4.1
December	6.9	14.0	11.0	7.1	4.1
Average	7.3	14.5	11.7	7.2	4.3
1931					
January	6.2	13.0	10.0	6.8	3.8
February	6.0	13.0	10.0	7.0	4.0
March	6.0	13.0	10.0	7.0	4.0
April	6.0	13.0	10.0	7.0	4.0
May	6.0	13.0	10.0	7.0	4.0
June	6.0	13.0	10.0	7.0	4.0

(Table 3 continued on next page)

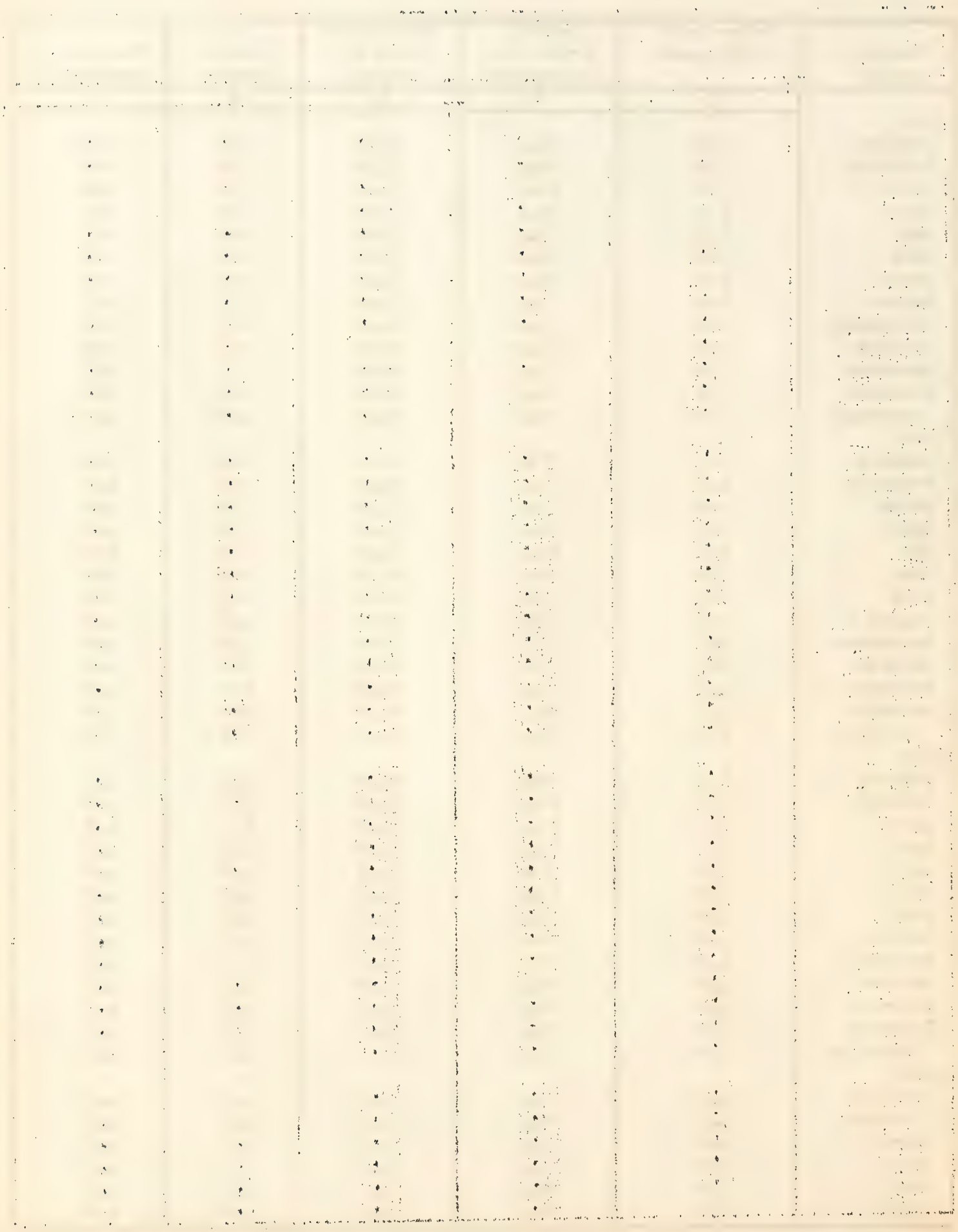
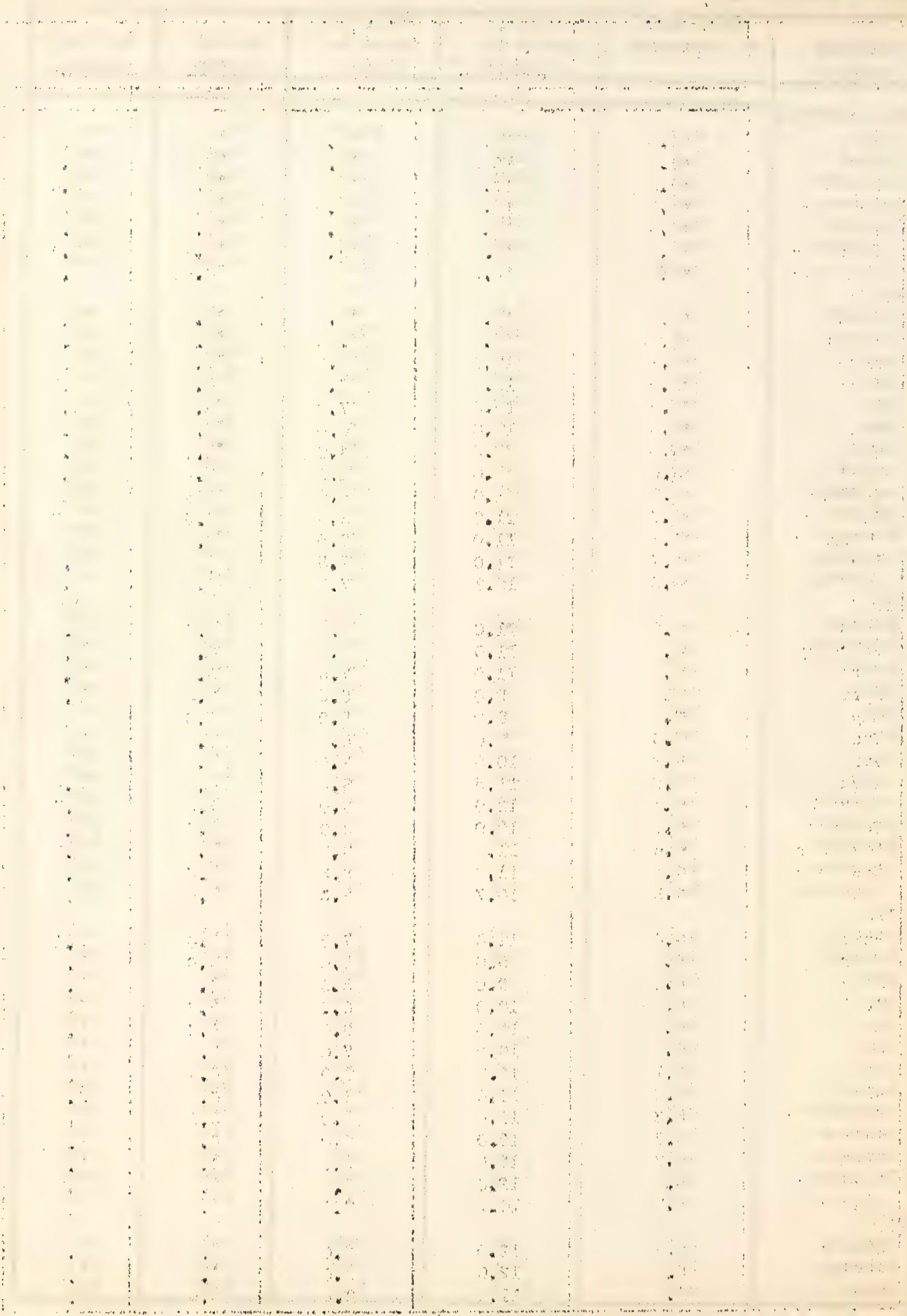


Table 3 continued.

Year and month	Price paid to producers	Retail price to consumers *	Wholesale price to stores	Retail margin	Wholesale margin
	1	2	3	4	5
1931 (cont'd.)					
July	6.0	13.0	10.0	7.0	4.0
August	5.6	12.0	9.0	6.4	3.4
September	5.6	12.0	9.0	6.4	3.4
October	5.6	12.0	9.0	6.4	3.4
November	5.6	12.0	9.0	6.4	3.4
December	5.6	12.0	9.0	6.4	3.4
Average	5.85	12.5	9.5	6.65	3.65
1932					
January	5.2	12.0	9.0	6.8	3.8
February	5.2	12.0	9.0	6.8	3.8
March	5.2	12.0	9.0	6.8	3.8
April	3.9	10.0	7.0	6.1	3.1
May	3.9	10.0	7.0	6.1	3.1
June	4.3	10.0	6.0	5.7	1.7
July	3.4	8.5	4.0	5.1	0.6
August	3.6	9.0	4.0	5.4	0.4
September	4.7	11.0	8.0	6.3	3.3
October	4.7	11.0	8.0	6.3	3.3
November	4.7	11.0	7.5	6.3	2.8
December	4.7	11.0	7.5	6.3	2.8
Average	4.5	10.7	7.2	6.2	2.7
1933					
January	4.7	11.0	7.5	6.3	2.8
February	4.7	11.0	7.5	6.3	2.8
March	4.7	11.0	7.5	6.3	2.8
April	3.4	9.0	5.5	5.5	2.1
May	2.7	8.0	5.0	5.3	2.3
June	3.9	9.0	6.5	5.1	2.7
July	4.2	10.5	7.0	6.3	2.8
August	4.6	11.5	8.0	6.9	3.4
September	4.7	12.0	8.0	7.3	3.3
October	4.7	12.0	8.0	7.3	3.3
November	4.6	11.5	8.0	6.9	3.3
December	4.4	11.0	8.5	6.6	4.1
Average	4.3	10.7	7.3	6.4	3.0
1934					
January	4.4	11.0	7.5	6.6	3.1
February	4.4	9.0	5.0	4.6	0.6
March	4.4	9.0	5.0	4.6	0.6
April	4.4	10.0	6.0	5.6	1.6
May	4.4	10.0	6.0	5.6	1.6
June	4.7	10.5	7.0	5.8	2.3
July	4.7	11.0	8.0	6.4	3.3
August	5.0	11.0	8.0	6.0	3.0
September	5.2	11.0	8.0	5.8	2.8
October	5.8	12.0	9.0	6.2	3.2
November	5.8	12.0	9.0	6.2	3.2
December	5.8	12.0	9.0	6.2	3.2
Average	4.9	10.7	7.1	5.8	2.2
1935					
January	5.8	12.0	9.0	6.2	3.2
February	5.8	12.0	9.0	6.2	3.2
March	4.7	11.5	8.0	6.8	3.3

(Table 3 continued on next page)



Year and month	Price paid to producers	Retail price to consumers *	Wholesale price to stores	Retail margin	Wholeaale margin
	1	2	3	4	5
1935 (cont'd.)					
April	4.5	11.0	7.5	6.5	3.0
May	4.5	11.0	7.5	6.5	3.0
June	4.5	11.0	7.5	6.5	3.0
July	4.6	11.0	7.5	6.4	2.9
August	4.5	11.0	7.5	6.5	3.0
September	4.5	11.0	7.5	6.5	3.0
October	4.5	11.0	7.5	6.5	3.0
November	4.7	11.0	7.5	6.3	2.8
December	4.7	11.0	7.5	6.3	2.8
Average	4.8	11.2	7.8	6.4	3.0
1936					
January	4.6	11.0	7.5	6.4	2.9
February	4.5	10.5	7.0	6.0	2.5
March	4.5	10.0	6.5	5.5	2.0
April	4.5	10.0	6.5	5.5	2.0
May	4.5	10.0	6.5	5.5	2.0

Sources of data:

Col. 1: Data in col. 1 of table 2 multiplied by .086.
Cols. 2 and 3: Data supplied by Mr. Martin H. Blank.
Col. 4: Col. 2 less col. 1.
Col. 5. Col. 3 less col. 1.

* Delivered to home of consumers.

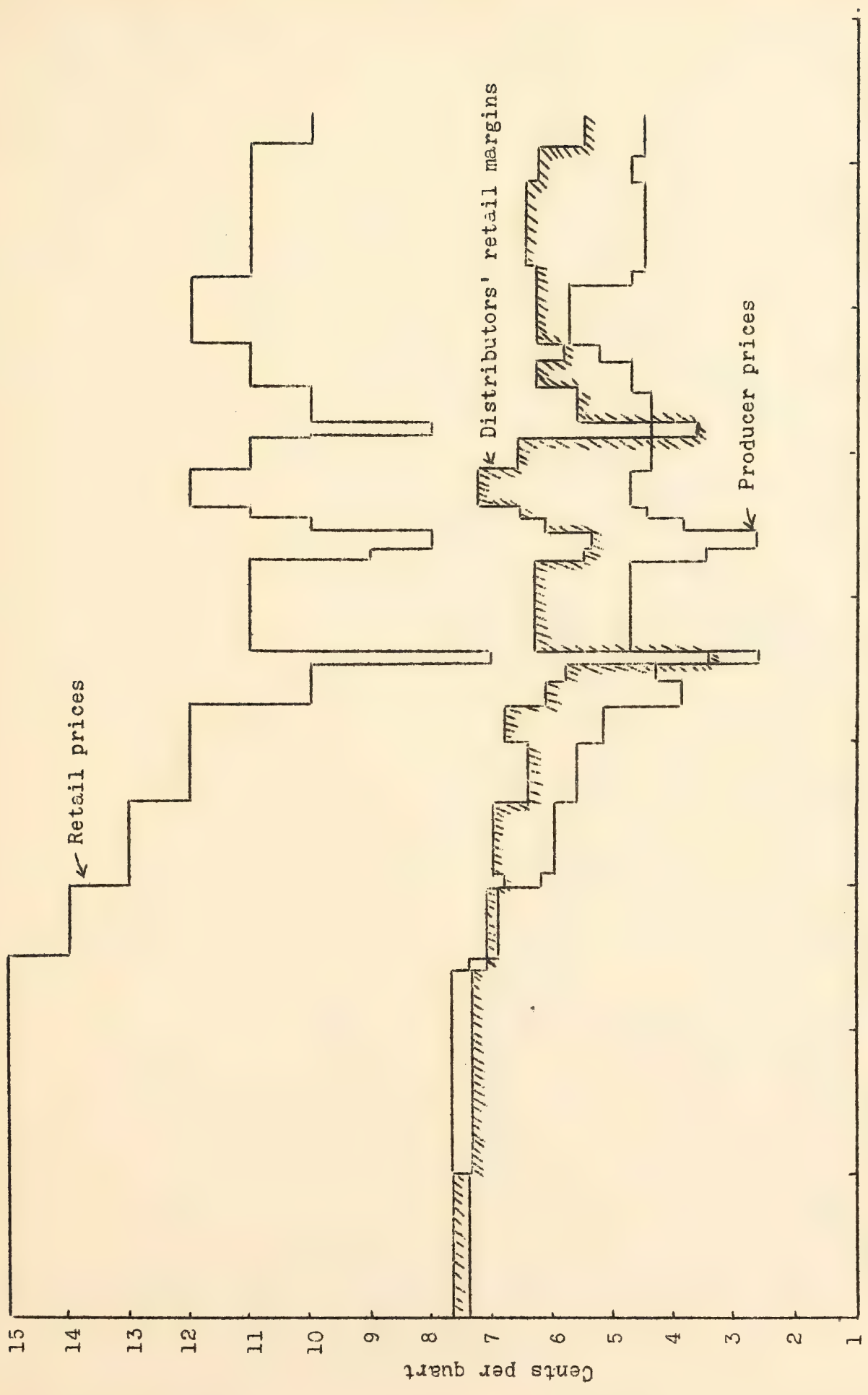
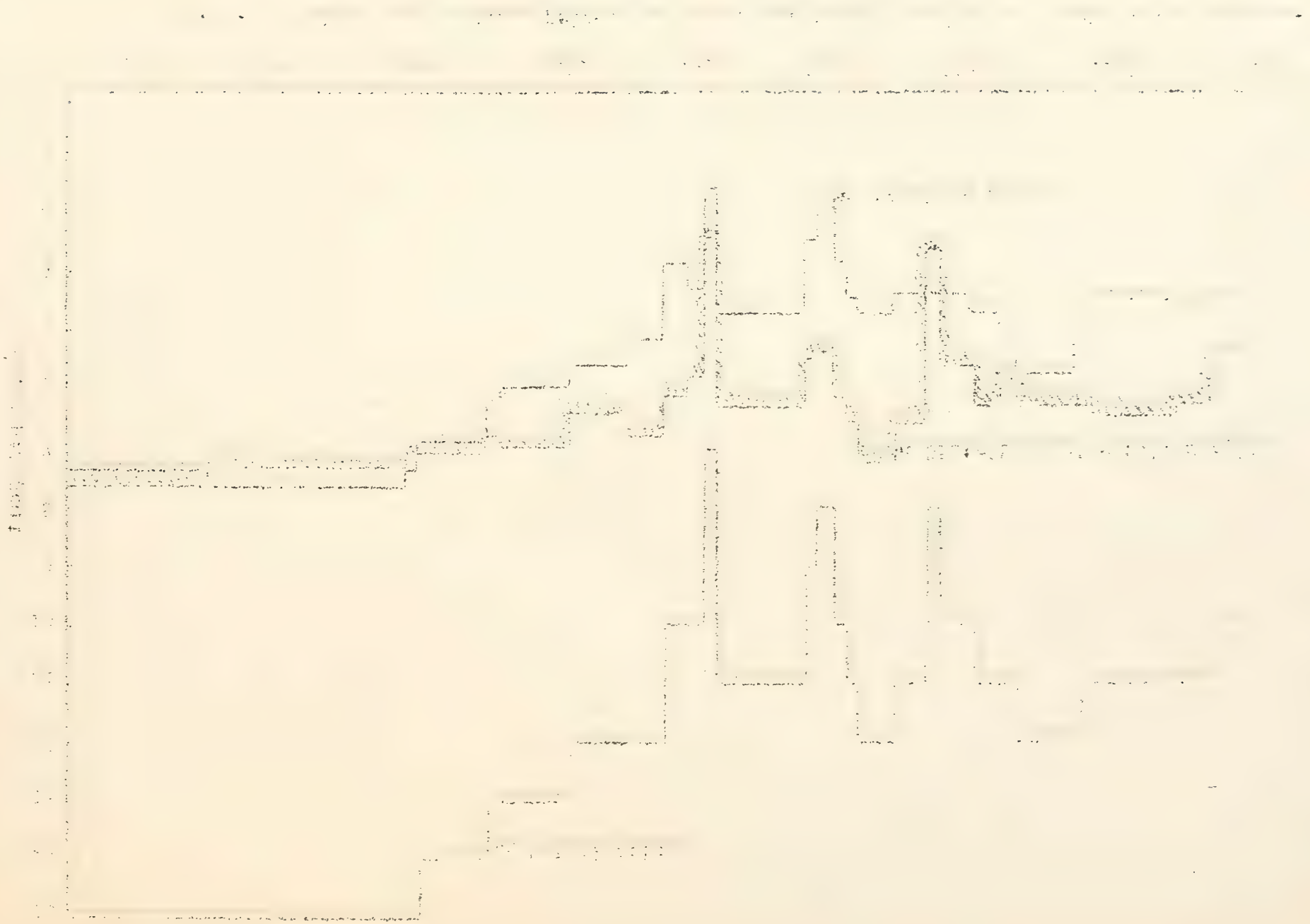


Fig. 3.-- Retail and producer prices per quart and retail margins per quart in Los Angeles.



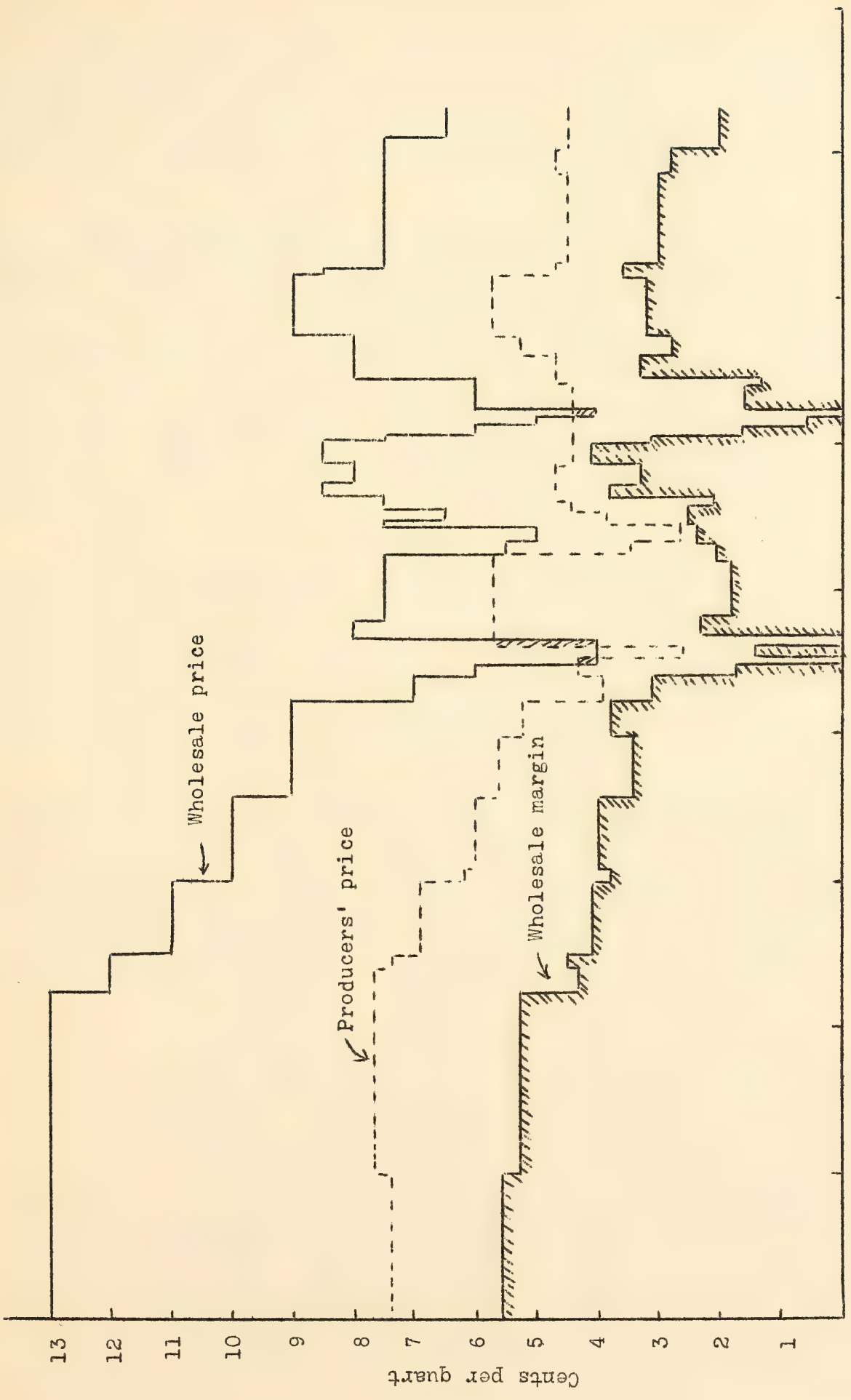
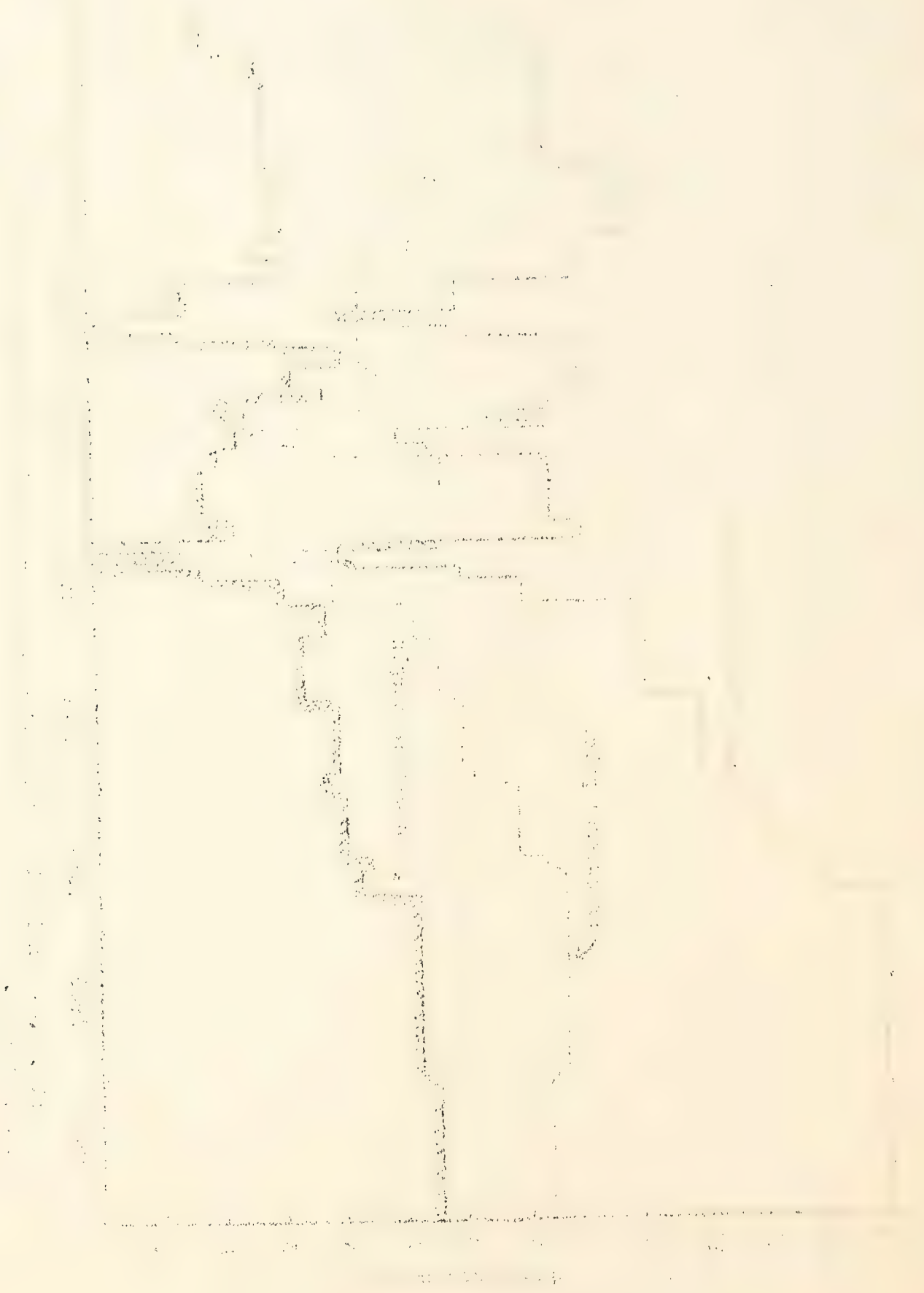


Fig. 4.-- Wholesale and producer prices per quart and wholesale margins per quart in Los Angeles.



An essential conflict of interest has developed between the three groups of distributors: producer-distributors, wholesale distributors, and those distributors depending largely upon serving the homes of consumers. So fierce has been the antagonism and rivalry between these groups that they have not been able to work harmoniously together for any length of time on common industry problems, even with the assistance of state and federal authorities.

Decline in Volume of Consumption.-- As was stated above, production of milk in the four southern counties had increased somewhat more rapidly than consumption between 1925 and 1930. The position was somewhat improved in 1931 because the total volume of production declined somewhat, whereas consumption increased by over 2,000,000 gallons. During the next two years, 1932 and 1933, production in the four counties increased about 4 per cent, whereas consumption declined over 7 per cent. Put somewhat differently, the level of production in 1933 was 71 per cent greater than that of 1925,whereas the level of consumption was only 49 per cent greater. During 1934 the relative position was somewhat improved -- production was 70 per cent higher than the 1925 level and consumption 60 per cent higher (table 1). A still greater improvement in the relation took place in 1935.

The decline in the volume of consumption of market milk during the years 1931 to 1933 was due largely to decreased purchasing power of large numbers of people in the four southern counties. The decline occurred in spite of a material reduction in prices paid by consumers. Home-delivered prices declined from 15 cents in 1929 to 12½ cents in 1931 and to an average of less than 11 cents in 1932, 1933, and 1934. Store prices had declined from 15 cents in 1929 to 8 cents in 1933 and 1934 (table 3). During some of the milk wars,prices paid by consumers declined to still lower levels.

During the whole of this period (1929-1935) population of the four southern counties increased so that the relative decline in per-capita consumption of market milk was relatively greater than that of total consumption (table 4). The peak of per-capita consumption for the four southern counties combined was reached in 1929. The peak in Orange County was reached in 1928 and in San Bernardino County in 1930. The decline in per-capita consumption in Orange, Riverside, and San Bernardino counties between 1929 and 1933 was much greater than in Los Angeles County. Moreover, the level of consumption in Los Angeles County has been consistently higher than in the other three counties (table 5).

Data on per-capita consumption in the four counties were shown separately as well as in combination in the hope that the trends in each county might throw some light on the vexed problem of the relation between store selling of milk and per-capita consumption. The store price of milk in the three counties (Orange, Riverside, and San Bernardino) has generally been the same as the home-delivered price, whereas differentials between store and delivered prices have prevailed in Los Angeles since 1930. It is interesting to note in this connection that the declines in per-capita consumption (between 1929 and 1933) were more severe in the other three counties than in Los Angeles County. On the other hand,the recovery in per-capita consumption since 1933 has been relatively greater in the other three counties than in Los Angeles. There are so many other factors that may have influenced the trend of per-capita consumption in the four counties that no definite conclusions can be drawn from the figures presented in table 5. There is, moreover, considerable doubt as to the accuracy of population estimates since 1930.

TABLE 4

Population and Volume of Milk Consumed
in Four Southern Counties
(1925-1935)

Year	Population					Consumption (thousand gallons)				
	Los Angeles	Orange	River-side	San Ber-nardino	Total	Los Angeles	Orange	River-side	San Ber-nardino	Total
1925	1,737,570	100,110	68,380	110,310	2,016,370	36,321	1,260	666	1,216	39,463
1926	1,842,550	97,150	71,220	114,700	2,125,620	41,019	1,967	820	1,605	45,411
1927	1,925,010	102,300	75,700	121,310	2,224,320	50,073	2,266	1,297	1,709	55,345
1928	2,010,170	107,910	80,670	127,800	2,326,550	50,745	2,402	1,618	2,973	57,738
1929	2,081,070	112,370	80,720	131,240	2,405,400	53,834	2,291	1,980	3,133	61,238
1930*	2,208,492	118,674	81,024	133,900	2,542,090	53,740	2,364	1,826	3,233	61,163
1931	2,273,670	119,750	84,130	139,930	2,617,480	56,459	2,356	1,611	2,933	63,359
1932	2,316,420	121,500	86,360	144,140	2,668,420	55,956	2,257	1,572	2,305	62,090
1933	2,333,700	120,670	89,970	147,050	2,691,390	52,715	1,960	1,772	2,240	58,689
1934	2,424,450	120,850	95,830	150,210	2,791,340	56,529	2,402	1,974	2,164	63,068
1935	2,481,240	123,610	103,560	161,640	2,870,050	57,335	2,572	2,204	2,684	64,795

* Census.

Sources of data:

Population: California Taxpayers Assn. The Tax Digest; 12(2):61-62. February, 1934 and 14(3), back cover, March, 1936.

Consumption: California State Dept. Agr. Div. Dairy Industry. Statistical report of California dairy products. Annual reports.

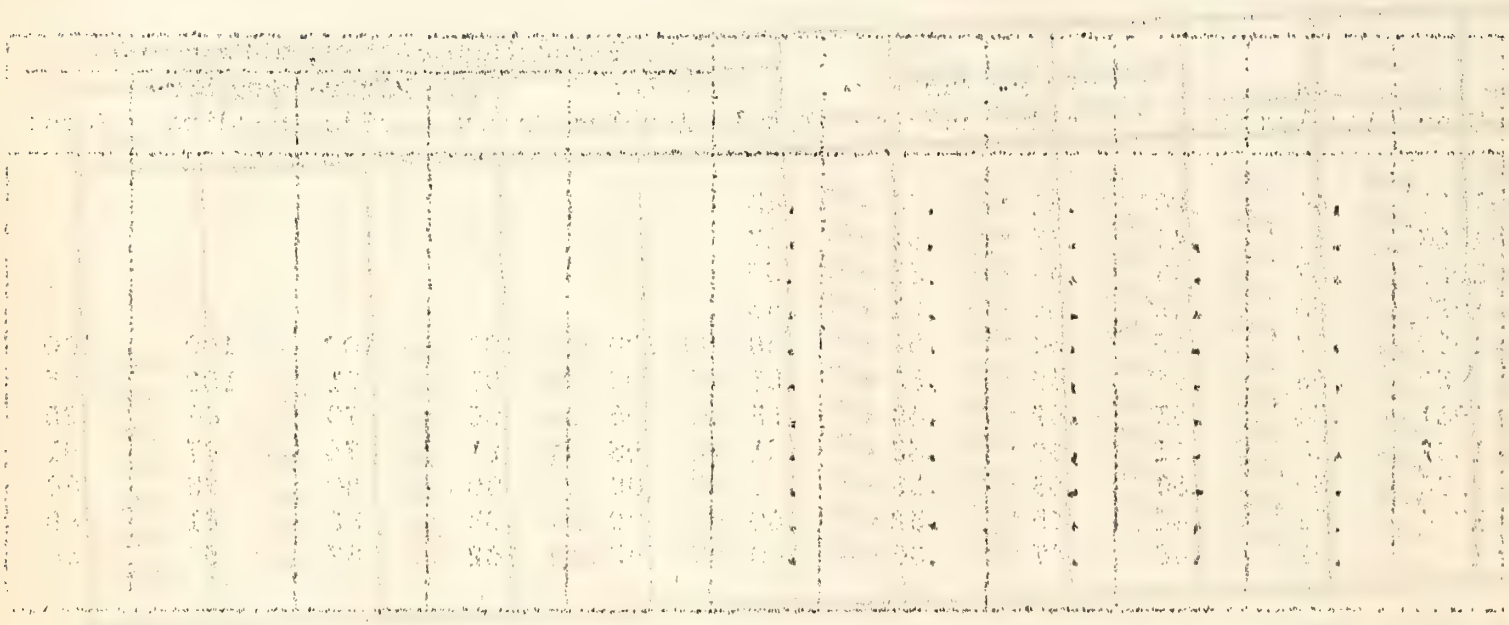
TABLE 5

Daily Per-Capita Consumption of Market Milk
in Four Southern Counties*
(In pints)

Year	Los Angeles	Orange	River-side	San Ber-nardino	Total	Percentage change, 1929 = 100				
						Los Angeles	Orange	River-side	San Ber-nardino	Total
1925	.46	.28	.21	.24	.43					
1926	.49	.44	.25	.31	.47					
1927	.57	.48	.38	.31	.55					
1928	.55	.49	.44	.51	.54					
1929	.57	.45	.54	.52	.56	100	100	100	100	100
1930	.53	.44	.49	.53	.53	93	98	91	102	95
1931	.54	.43	.42	.46	.53	95	96	78	88	95
1932	.53	.41	.40	.35	.51	93	91	74	67	91
1933	.50	.36	.43	.33	.48	88	80	80	63	86
1934	.51	.44	.45	.32	.49	89	98	83	61	88
1935	.51	.46	.47	.36	.49	89	102	87	69	88

* Gallonage figures in table 4 were multiplied by 8; divided by 365; and divided by corresponding figures on population.

Source of data: Table 4.



This decline in the total volume of consumption, in the face of an increase in production and in the face of an increase in shipments of market milk from the San Joaquin Valley, led to the development of an unmanageable surplus of market milk. Distributors, who had developed Grade A milk for cream in the San Joaquin Valley and other areas, were unwilling to use the local surplus in Los Angeles for cream purposes. The surplus thus had to be converted into butter and skim milk by-products. At the same time there was a plentiful supply of surplus milk available for distributors, who were unwilling to pay the established prices to producers.

In spite of the extremely low prices received by producers in the four southern counties, it appears that they have been unable to effect any material reduction in the total volume of production since 1930. In fact, production has tended to increase somewhat. Possibly the early reaction of producers to low prices in the four southern counties is similar to the reaction of producers of other types of agricultural products. Producers find it necessary to have a certain level of income to meet fixed operating expenses. If the level of prices declines, their first reaction is to increase output in anticipation that the increased output times the lower prices will give the same income level as previously. In the long run, such a response to lower prices will cause prices to decline still further, but it may be several years before sufficient producers go out of business or producers generally reduce their output so as to effect a decreased total supply.

Readjustment or a decrease in supply was retarded or offset to a considerable degree by the various state and federal efforts to raise producer prices and to stabilize market conditions in the Los Angeles area. Furthermore, producers appear to have effected such changes and economies in their production practices that they are able to operate on a much lower relative price level than previously.

Under the circumstances it seems highly improbable that the surplus of market milk production in the four southern counties will be eliminated within the near future, unless prices decline to still lower relative levels, or unless consumption of market milk increases more rapidly than production. It is, moreover, questionable whether it is economically necessary or desirable for producers in the four southern counties to limit their production to market milk requirements. The mere fact that there was a close correspondence between volume of production and volume of consumption prior to 1930 does not establish the fact that this situation is permanently desirable or advisable. Changes in transportation conditions have widened the potential Los Angeles milk shed and broken down the previously distinct separation between the milk and cream sheds. If producers in the four southern counties have been able to modify their production practices to conform to the changed marketing conditions, there appears to be no reason why they should not continue producing a surplus over market milk consumption requirements and why this surplus should not eventually become a part of the market cream supply.

Chaotic Marketing Conditions.-- The combined and cumulative effect of these several disturbing factors outlined above has been to keep the Los Angeles milk market in a condition of constant turmoil. Milk wars have merged into new milk wars with alarming frequency. Federal, state, and other efforts to stabilize conditions have met with only a small measure of short-lived success. The breakdown of these various stabilization attempts has been followed frequently by more violent competition and price cutting than before. Since 1931 the Los Angeles milk market has been a "free-for-all" fight; producer group against producer group; producers against distributors; distributor groups against producers and against distributor groups.

Milk marketing conditions in Los Angeles have been much worse than in any other major milk market in California. Table 6 and figures 5 and 6 show that prices paid to producers for market milk have declined to lower levels than similar prices in San Francisco, Oakland, and San Diego markets. In May, 1933, producer prices were only 36 per cent of the 1928 average monthly price. In San Diego the lowest price was also reached in May, 1933, but the price was 47 per cent of the 1928 average. In San Francisco the lowest prices were reached in several months during 1934, but these prices were 56 per cent of the 1928 level. The corresponding figure for the Oakland market was 57 per cent in February, 1934.

Along with the more violent fluctuation of prices has been a more frequent change in prices paid to producers for market milk. In Los Angeles monthly base producers' prices changed thirty-one times during the period 1930 to 1936 (table 7). In San Diego and Oakland there were only nineteen changes and in the San Francisco market only nine. Changes in retail, wholesale, and store prices were even more frequent and more violent -- more frequent than is indicated by the figures on the monthly level of retail and wholesale prices in table 3. Changes in wholesale and store prices to consumers were particularly frequent and violent. At times store prices to consumers declined as low as 1 and 2 cents a quart. Prices were frequently changed two and three times a month and, in addition, all types and degrees of rebates, discounts, and allowances were resorted to.

The lowest annual level of prices to producers was experienced in 1933 during which the average price in Los Angeles was only 50 cents per pound of milk fat compared with 54 cents in San Francisco, 55½ cents in Oakland, and 60 cents in San Diego. During the first six months of 1936 the average prices to producers were 52½ cents in Los Angeles, 65 cents in San Francisco, 62 cents in Oakland, and 64 cents in San Diego. 7/ Both the absolute and relative recovery of prices in Los Angeles since 1933 have been considerably less than for the other three markets. In 1928 and 1929 the average annual prices paid to producers for market milk in Los Angeles were about the same as in Oakland and San Francisco; during the first six months of 1936 base prices to producers in Los Angeles were about 10 cents lower.

The failure of producer prices in Los Angeles to recover from the low levels reached during the year 1933 is illustrated even more forcefully by the figures in table 2 and figure 3. In 1928 the average annual differential between market milk prices in Los Angeles and manufacturing milk prices in Tulare was 23.2 cents per pound of butterfat. The differential increased to 30 cents in 1929 and to over 33.6 cents in 1930 and 1931, but declined to 21.8 cents in 1933 and to 23.1 cents in 1934. In 1935 butter prices and hence manufacturing milk prices increased appreciably over the 1934 levels, whereas the annual average level of buying prices for market milk in Los Angeles declined somewhat, the differential being reduced to 15.4 cents. During the first four months of 1936 butter and manufacturing milk prices experienced a further recovery, whereas market milk prices in Los Angeles declined 3 cents from the average level of 1935. The

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7/ The relative decline in the annual average level of prices between 1928 and 1933 was somewhat greater than for the Los Angeles market. While some of the factors responsible for the decline in prices in the Los Angeles market were also present for San Diego, the latter market still remains largely isolated and inaccessible to supplies of market milk from adjacent counties. San Francisco and East Bay cities have for the past decade or more drawn their supplies from adjacent dense dairy territory. They were not isolated markets as were Los Angeles and San Diego.

TABLE 6

Base Prices of Market Milk in Los Angeles, San Francisco, Oakland, and San Diego

Year and month	Cents per pound of milk fat				Percentage change (average 1928 = 100)			
	Los Angeles	San Francisco	Oakland	San Diego	Los Angeles	San Francisco	Oakland	San Diego
1928								
January	88.0	92.0	86.0	107.0	102	103	100	100
February	88.0	89.0	86.0	107.0	102	100	100	100
March	88.0	89.0	86.0	107.0	102	100	100	100
April	85.0	89.0	86.0	107.0	99	100	100	100
May	85.0	89.0	86.0	107.0	99	100	100	100
June	85.0	89.0	86.0	107.0	99	100	100	100
July	85.0	89.0	86.0	107.0	99	100	100	100
August	85.0	89.0	86.0	107.0	99	100	100	100
September	85.0	89.0	86.0	107.0	99	100	100	100
October	85.0	89.0	86.0	107.0	99	100	100	100
November	85.0	89.0	86.0	107.0	99	100	100	100
December	85.0	89.0	86.0	107.0	99	100	100	100
Average	86.0	89.0	86.0	107.0	100	100	100	100
1929								
January	90.0	89.0	86.0	108.0	105	100	100	101
February	88.0	89.0	86.0	108.0	102	100	100	101
March	88.0	89.0	86.0	107.0	102	100	100	100
April	88.0	89.0	86.0	107.0	102	100	100	100
May	87.0	89.0	86.0	107.0	101	100	100	100
June	87.0	89.0	86.0	107.0	101	100	100	100
July	90.0	89.0	86.0	107.0	105	100	100	100
August	90.0	89.0	86.0	107.0	105	100	100	100
September	90.0	89.0	86.0	107.0	105	100	100	100
October	90.0	89.0	86.0	107.0	105	100	100	100
November	90.0	89.0	86.0	107.0	105	100	100	100
December	90.0	89.0	86.0	107.0	105	100	100	100
Average	89.0	89.0	86.0	107.0	103	100	100	100
1930								
January	90.0	89.0	86.0	107.0	105	100	100	100
February	90.0	89.0	86.0	107.0	105	100	100	100
March	90.0	89.0	86.0	110.0	105	100	100	103
April	90.0	89.0	86.0	110.0	105	100	100	103
May	88.0	89.0	82.0	110.0	102	100	95	103
June	86.0	89.0	82.0	110.0	100	100	95	103
July	80.0	89.0	84.0	110.0	93	100	98	103
August	80.0	89.0	84.0	110.0	93	100	98	103
September	80.0	89.0	84.0	110.0	93	100	98	103
October	80.0	89.0	60.5	110.0	93	100	70	103
November	80.0	89.0	57.5	110.0	93	100	67	103
December	80.0	89.0	57.5	100.0	93	100	67	94
Average	84.5	89.0	78.0	108.0	98	100	91	100
1931								
January	72.0	89.0	67.0	100.0	84	100	78	94
February	70.0	67.0	74.0	100.0	81	75	86	94
March	70.0	67.0	74.0	100.0	81	75	86	94
April	70.0	67.0	74.0	100.0	81	75	86	94
May	70.0	67.0	74.0	100.0	81	75	86	94
June	70.0	67.0	74.0	100.0	81	75	86	94

(Table 6 continued on next page)

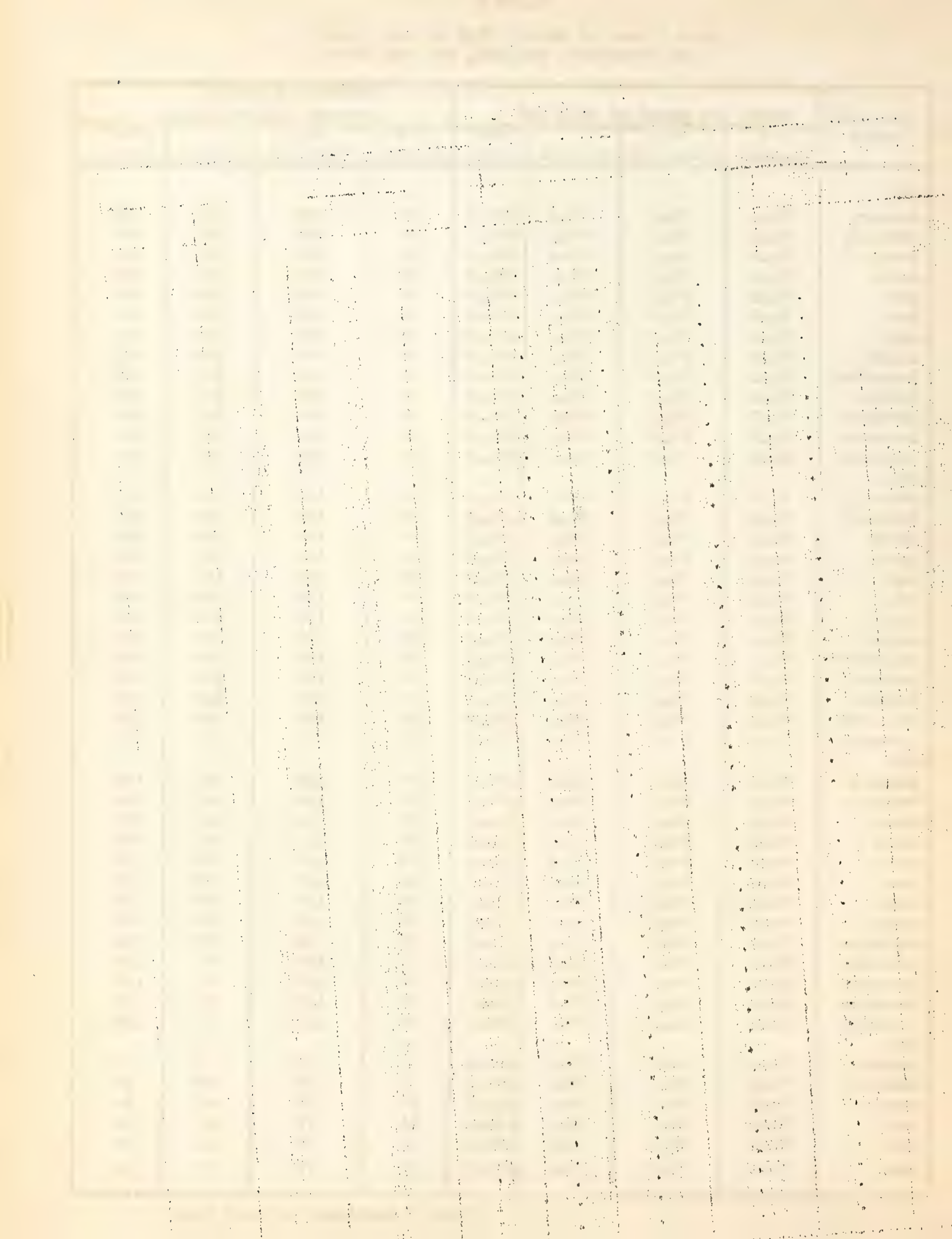

Table 6 continued:

Year and month	Cents per pound of milk fat				Percentage change (average 1928 = 100)			
	Los Angeles	San Francisco	Oakland	San Diego	Los Angeles	San Francisco	Oakland	San Diego
1931 (cont'd.)								
July	70.0	67.0	72.0	95.0	81	75	84	89
August	65.0	67.0	70.0	95.0	76	75	81	89
September	65.0	67.0	70.0	95.0	75	67	81	89
October	65.0	60.0	70.0	95.0	76	67	81	89
November	65.0	60.0	70.0	90.0	76	67	81	84
December	65.0	60.0	70.0	90.0	76	67	81	84
Average	68.0	67.0	72.0	97.0	79	75	84	91
1932								
January	60.0	63.0	70.0	90.0	70	71	81	84
February	60.0	63.0	70.0	85.0	70	71	81	79
March	60.0	63.0	70.0	85.0	70	71	81	79
April	45.0	63.0	70.0	85.0	52	71	81	79
May	45.0	63.0	64.0	85.0	52	71	74	79
June	50.0	63.0	63.0	85.0	58	71	73	79
July	40.0	63.0	63.0	85.0	47	71	73	75
August	43.0	63.0	63.0	80.0	50	71	73	75
September	55.0	63.0	63.0	80.0	64	71	73	75
October	55.0	63.0	63.0	80.0	64	71	73	75
November	55.0	63.0	63.0	80.0	64	71	73	75
December	55.0	63.0	63.0	73.0	64	71	73	68
Average	52.0	63.0	65.0	83.0	60	71	76	78
1933								
January	55.0	63.0	63.0	66.0	64	71	73	62
February	55.0	63.0	63.0	66.0	64	71	73	62
March	55.0	53.0	63.0	66.0	64	60	73	62
April	40.0	51.0	57.0	57.0	47	57	66	53
May	31.0	51.0	51.0	50.0	36	57	59	47
June	45.0	51.0	51.0	52.0	52	57	59	49
July	48.0	51.0	51.0	52.0	56	57	59	49
August	53.0	51.0	51.0	59.0	62	57	59	55
September	55.0	51.0	51.0	63.0	64	57	59	59
October	55.0	55.0	51.0	63.0	64	62	59	59
November	53.0	61.0	57.0	63.0	62	69	66	59
December	51.0	61.0	58.0	61.5	59	69	67	57
Average	50.0	54.0	55.5	60.0	58	61	65	56
1934								
January	51.0	58.0	54.0	60.0	59	65	65	56
February	51.0	58.0	51.0	60.0	59	65	57	56
March	51.0	58.0	58.0	60.0	59	65	67	56
April	51.0	50.0	58.0	60.0	59	56	67	56
May	51.0	50.0	58.0	60.0	59	56	67	56
June	55.0	50.0	56.0	60.0	64	56	65	56
July	55.0	50.0	56.0	60.0	64	56	65	56
August	58.0	50.0	56.0	60.0	67	56	65	56
September	61.0	50.0	62.0	60.0	71	56	72	56
October	67.0	62.0	62.0	66.0	78	70	72	62
November	67.0	62.0	62.0	66.0	78	70	72	62
December	67.0	62.0	62.0	66.0	78	70	72	62
Average	57.0	55.0	58.0	61.0	66	62	67	57

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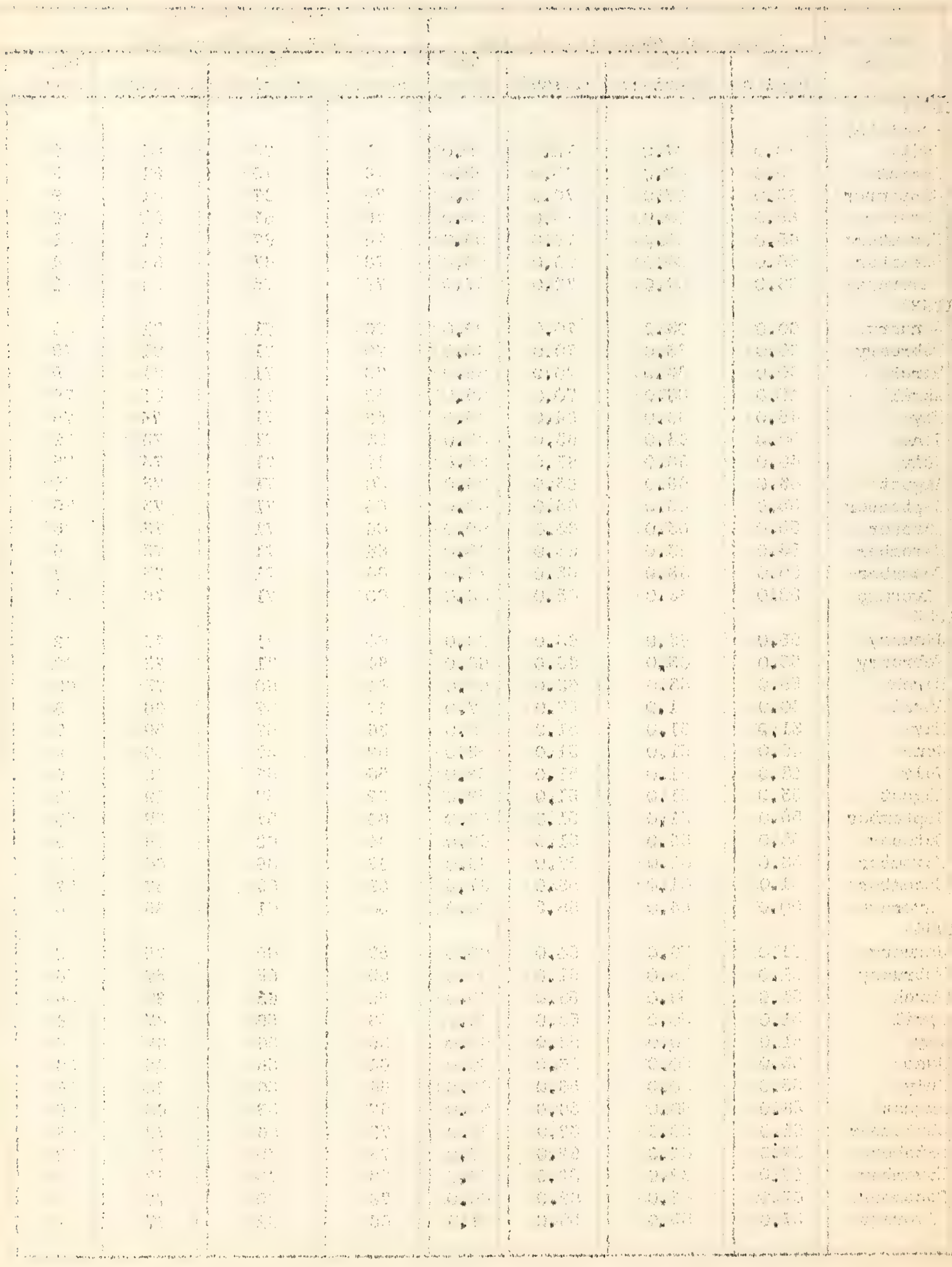
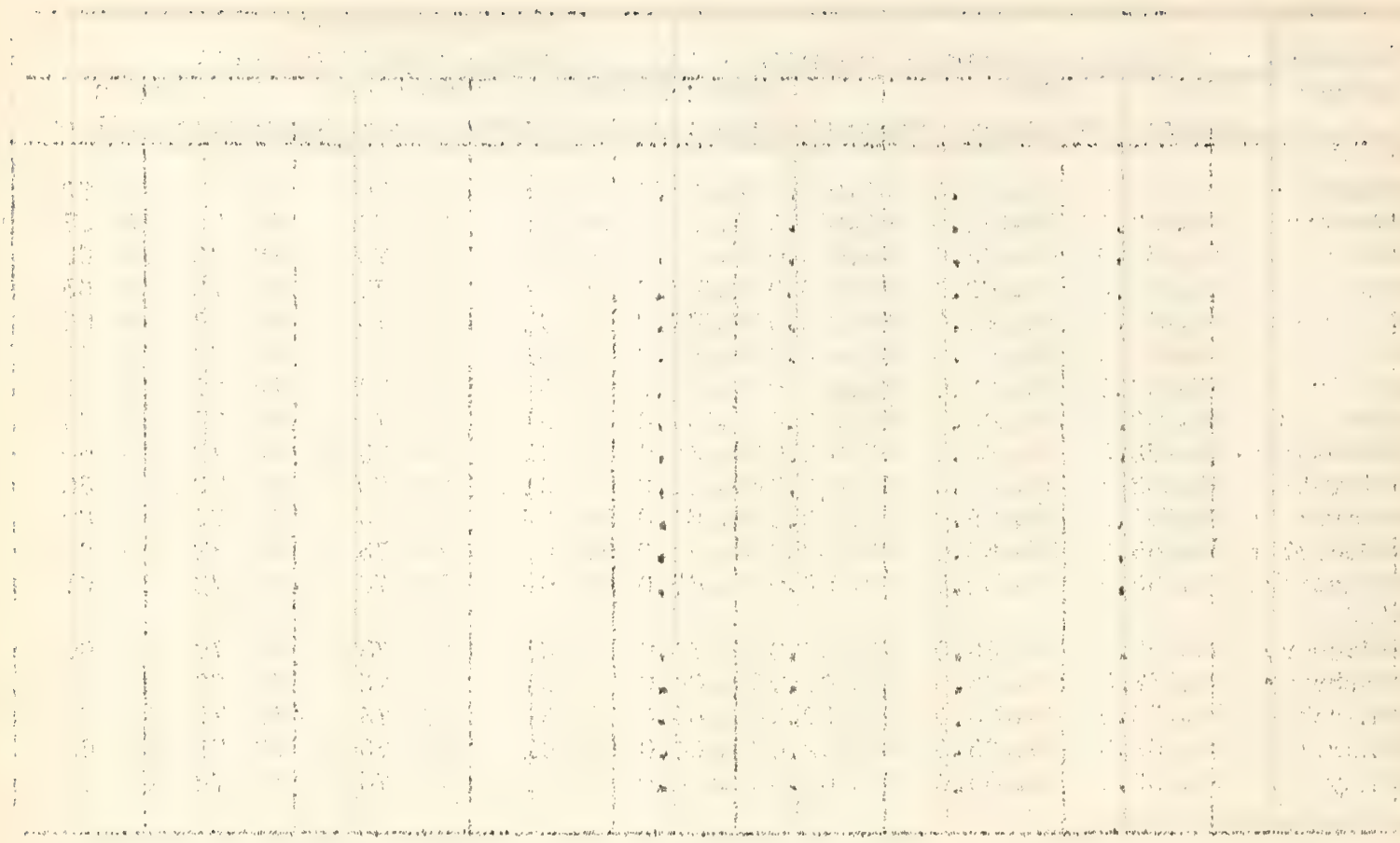


Table 6 continued:

Year and month	Cents per pound of milk fat				Percentage change (average 1928 = 100)			
	Los Angeles	San Francisco	Oakland	San Diego	Los Angeles	San Francisco	Oakland	San Diego
1935								
January	67.0	62.0	62.0	66.0	78	70	72	62
February	67.0	62.0	62.0	67.0	78	70	72	63
March	55.0	62.0	62.0	67.0	64	70	72	63
April	52.5	62.0	62.0	67.0	61	70	72	63
May	52.5	62.0	62.0	67.0	61	70	72	63
June	52.5	62.0	62.0	66.0	61	70	72	62
July	53.0	62.0	62.0	64.0	62	70	72	60
August	52.5	62.0	62.0	64.0	61	70	72	60
September	52.5	62.0	62.0	64.0	61	70	72	60
October	52.5	62.0	62.0	64.0	61	70	72	60
November	54.0	65.0	62.0	64.0	63	73	72	60
December	55.0	65.0	62.0	64.0	64	73	72	60
Average	55.5	62.5	62.0	65.0	65	70	72	61
1936								
January	53.0	65.0	62.0	64.0	61	73	72	60
February	52.5	65.0	62.0	64.0	61	73	72	60
March	52.5	65.0	62.0	64.0	61	73	72	60
April	52.5	65.0	62.0	64.0	61	73	72	60
May	52.5	65.0	62.0	64.0	61	73	72	60

Source of data:

U. S. Dept. Agr. Bur. Agr. Econ. Monthly fluid milk reports. January, 1928 to May, 1936.



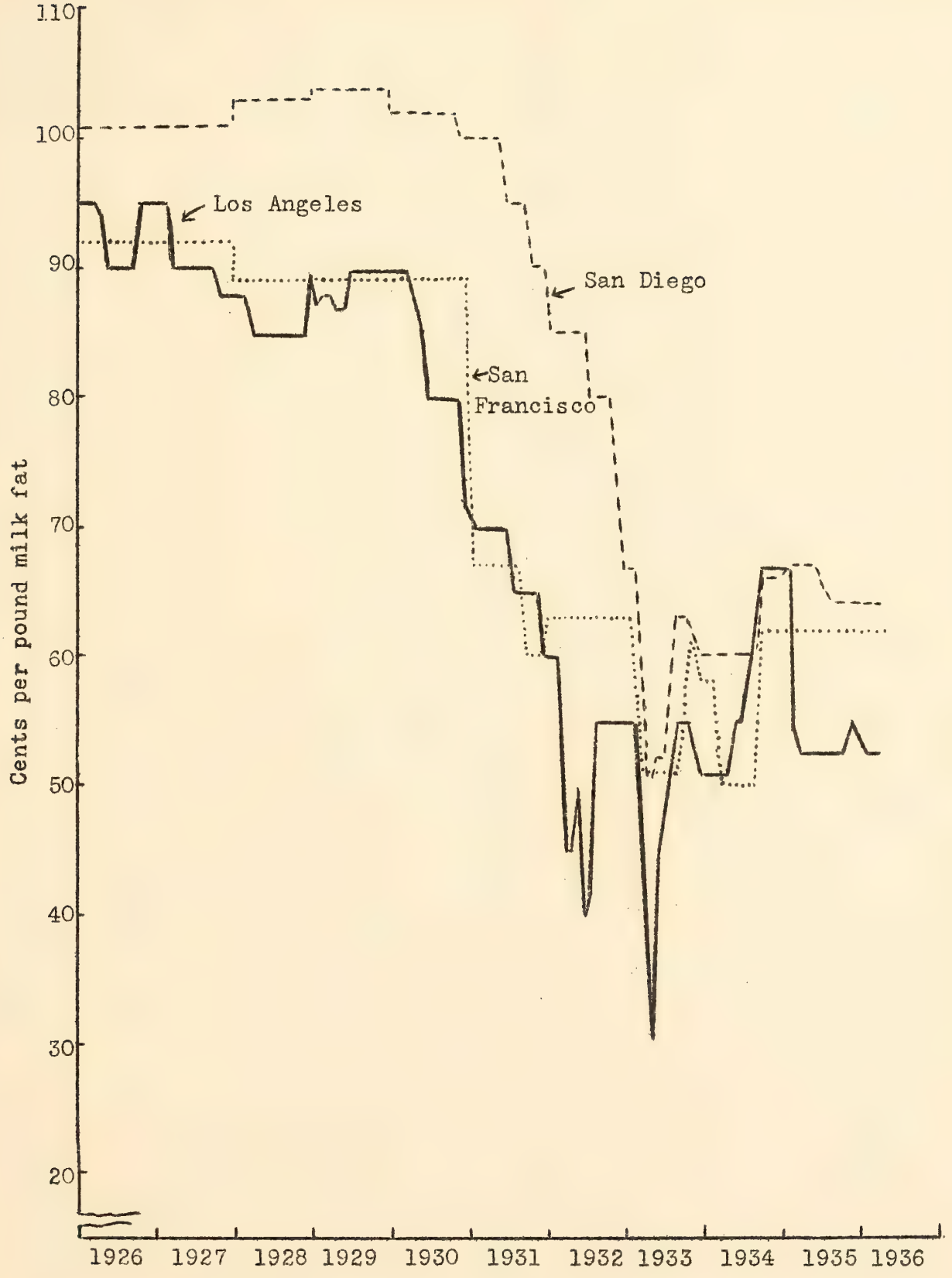
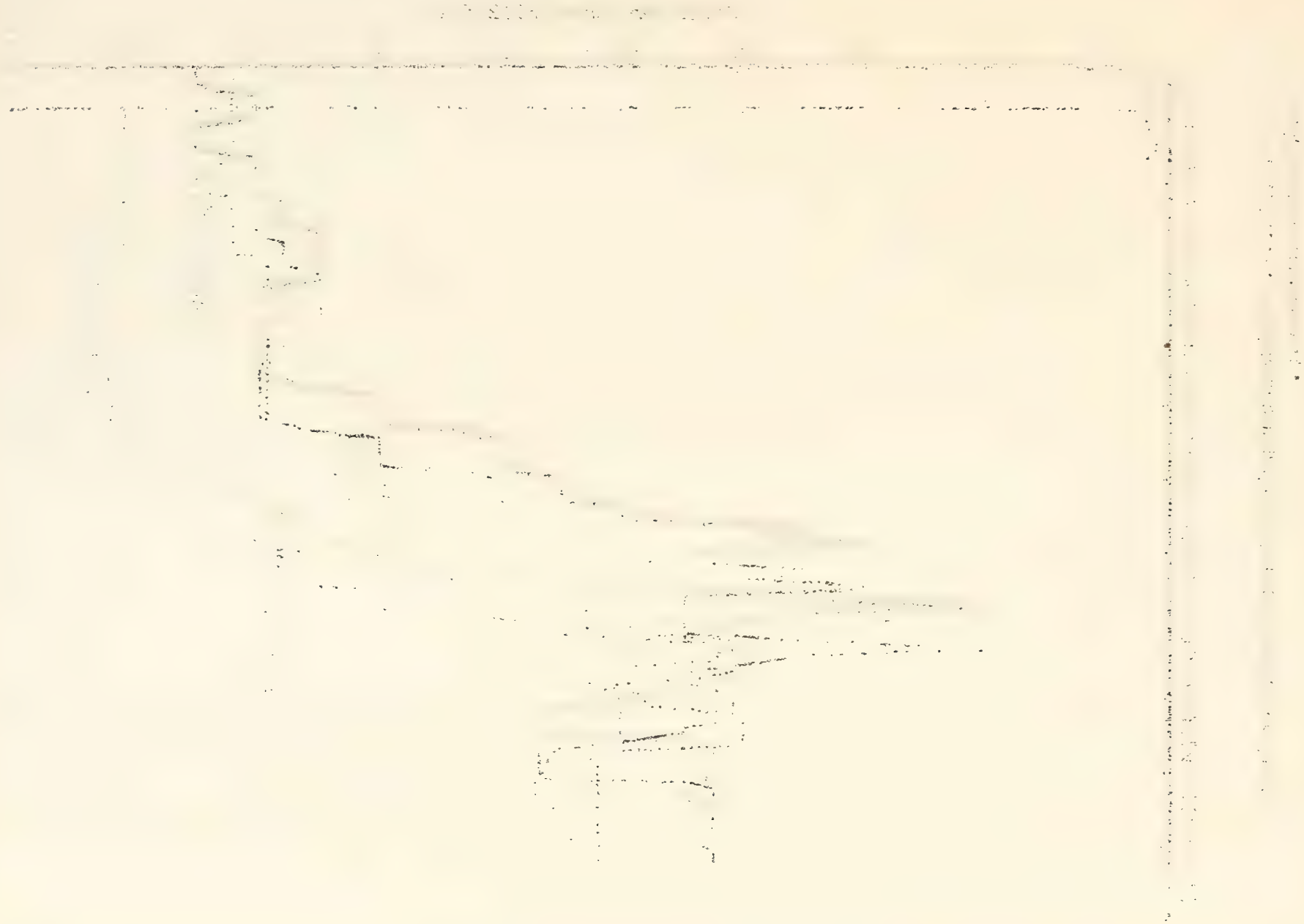


Fig. 5.-- Producer prices for market milk in three California markets.



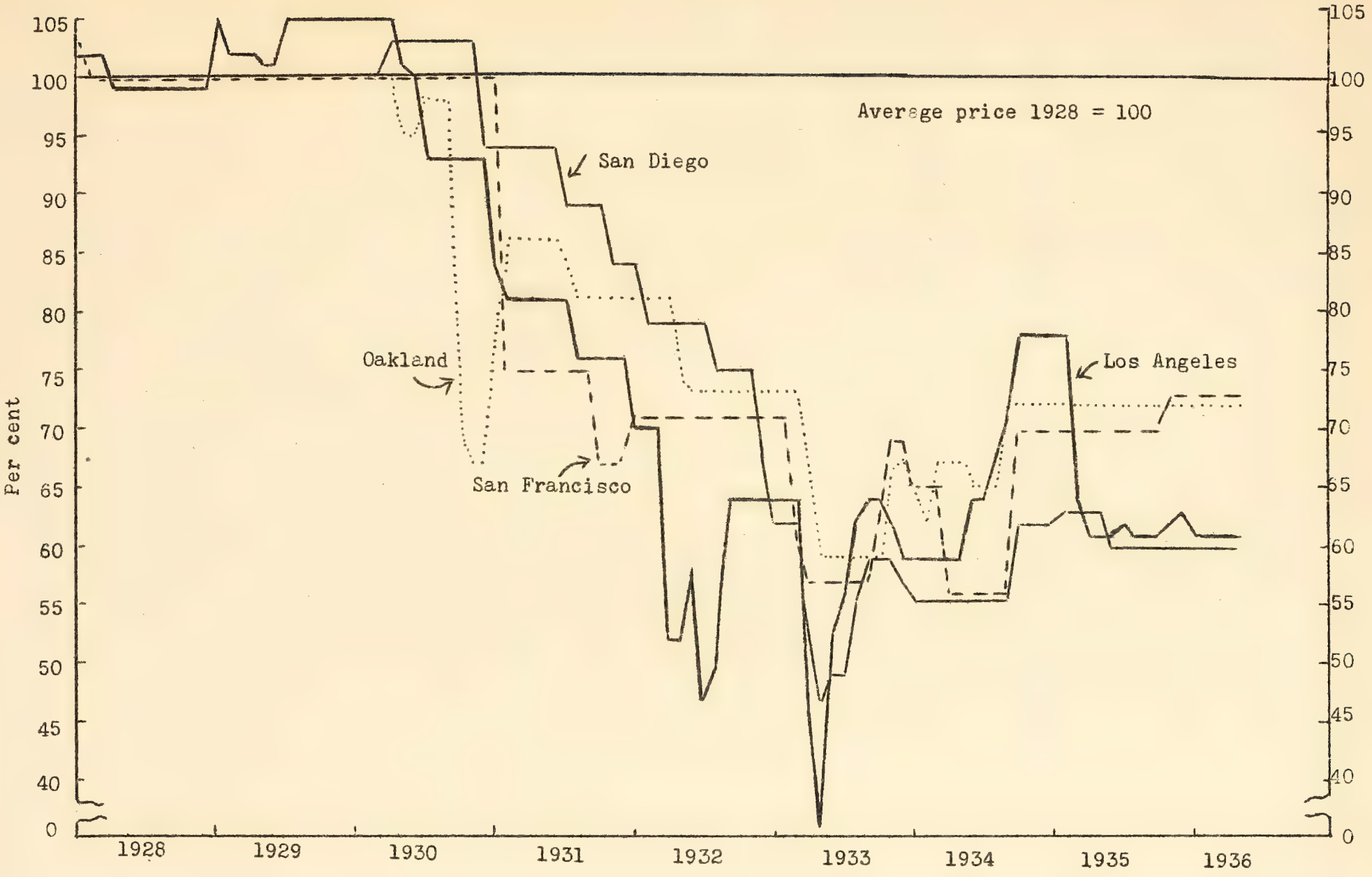


Fig. 6.-- Relative changes in prices paid to producers for market milk in four markets in California.

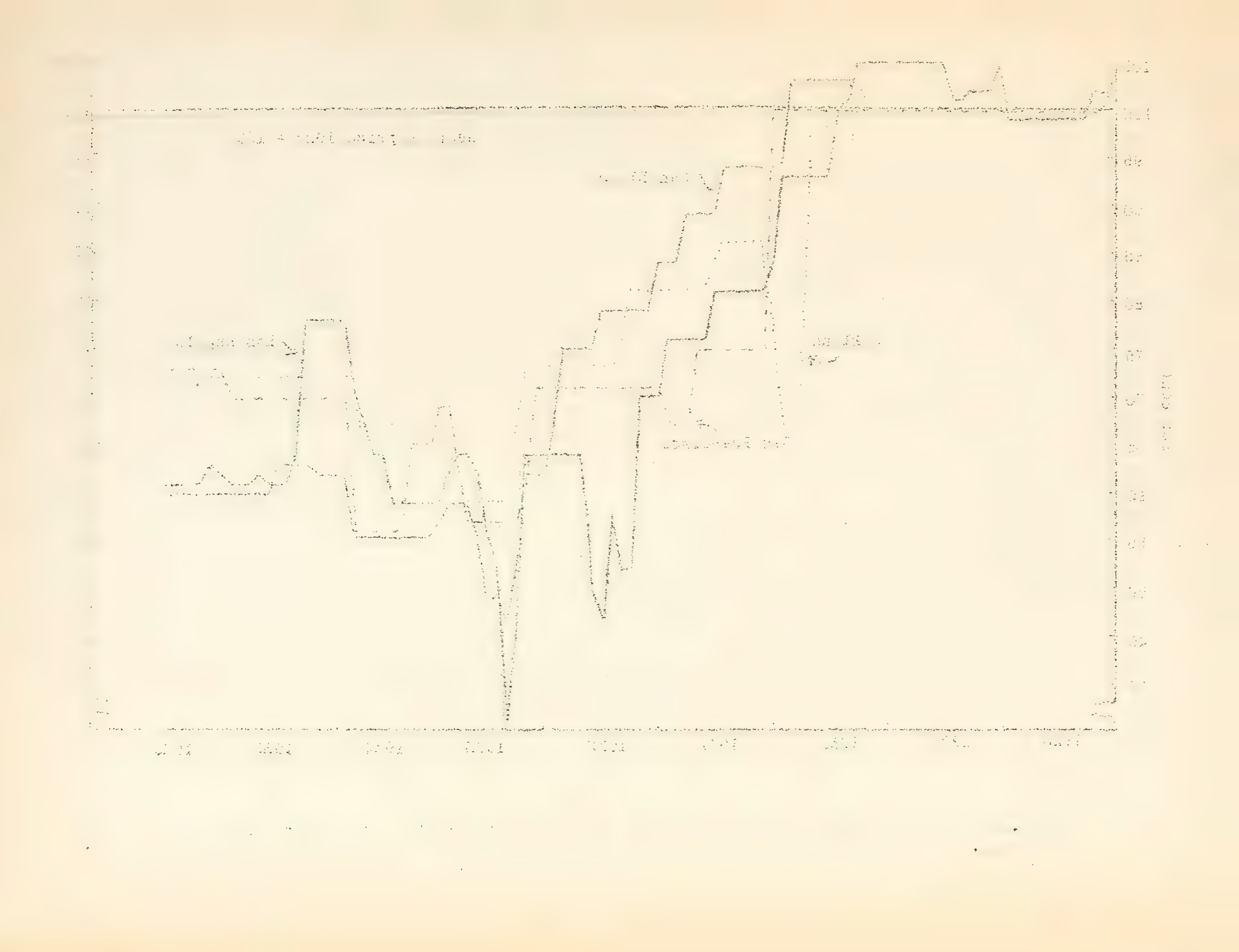
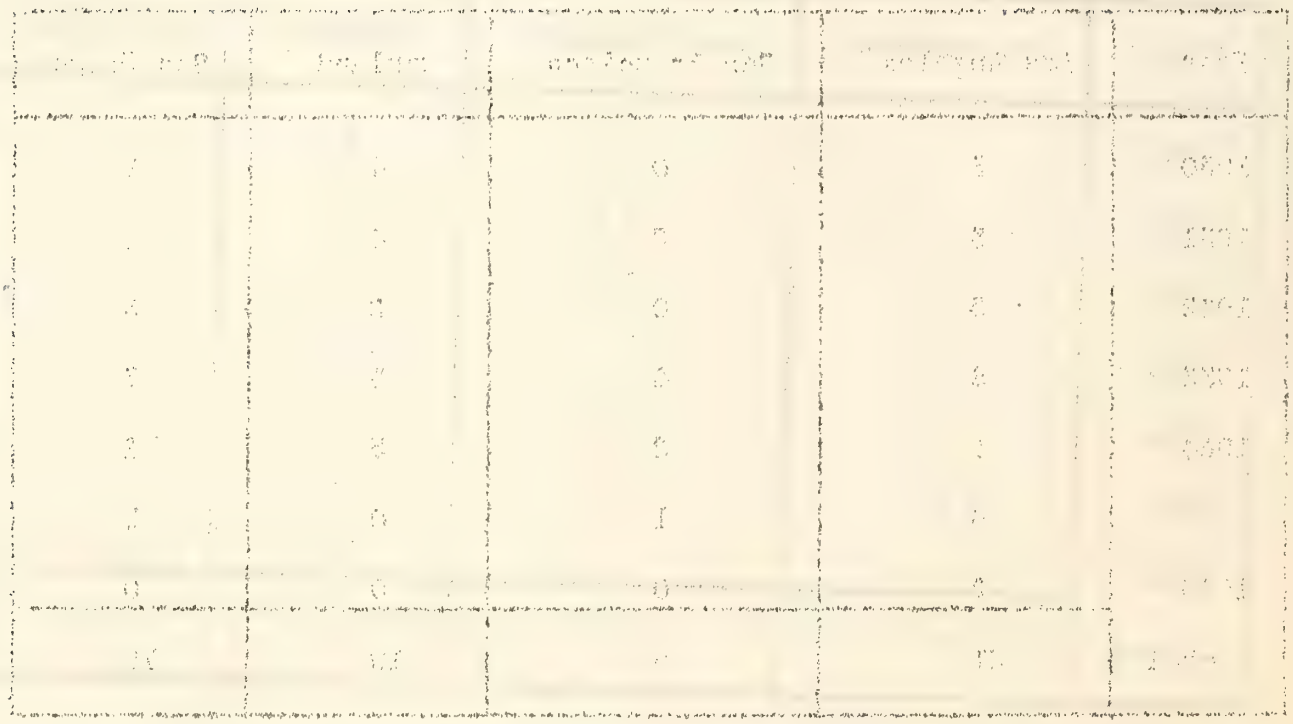


TABLE 7

Number of Times Monthly Prices to Producers
Were Changed in Four Selected Markets in California
(1930-1936)

Year	Los Angeles	San Francisco	Oakland	San Diego
1930	3	0	4	2
1931	3	2	4	2
1932	5	0	2	3
1933	8	4	4	7
1934	4	2	5	2
1935	6	1	0	3
1936	2	0	0	0
Total	31	9	19	19

Source of data: Table 6.



average differential between market milk prices in Los Angeles and manufacturing milk prices in Tulare was reduced to only 6.6 cents during the first four months of 1936. This figure is less than half of the average annual differential for 1935 and less than one-third of that for 1928.

In 1931 the price paid for market milk produced in the four southern counties was 23½ cents a pound of milk fat more than was received by producers of Grade A milk in Tulare County. In 1933 and 1934 the differential had been reduced to 18½ cents. In 1934, however, following the recovery of butter prices and manufacturing milk prices, the annual average differential was reduced to only 9 cents and during the first four months of 1936 to only 2 cents.

Assuming that producers of Grade A milk in Kern County received 1 cent more than producers in Tulare County (the approximate difference in transportation costs), then producers in the four southern counties received only 1 cent more than producers in Kern County. Railroad transportation costs from Bakersfield to Los Angeles are 27 cents per 10-gallon can (minimum volume, 2,000 cans per month), or 7.84 cents per pound of milk fat (4 per cent milk). Assuming further that milk can be shipped from Bakersfield to Los Angeles by truck at only 5 cents (2.84 cents less than by railroad), [8] and that cooling and country handling costs are only 3 cents (Spencer estimated 5 cents), it would cost a dealer, paying 51 cents for Grade A milk in Kern County at least 59 cents to get the milk to a distributing plant in Los Angeles. The cost on milk, which is mechanically cooled on the farm would have been from 1 to 2 cents higher. In other words, it would appear that it would not have been economical to ship milk from Bakersfield to Los Angeles during the first four months of 1936 unless buying prices in the latter market had been at least 59 to 61 cents per pound of milk fat.

There seems no doubt that producers in the four southern counties could have received a price for market milk several cents higher than they received during the last six months of 1935 and the first few months of 1936 without encouraging the shipment of milk from the San Joaquin Valley or other potential supplementary supply areas. [9] Assuming that producers had received a price of 59 cents for market milk but that only 70 per cent of all milk produced in the four southern counties was sold as market milk and 30 per cent was sold as manufacturing milk, the average price received by producers would have been 55-1/10 cents per pound of milk fat instead of 52½ cents actually received. This is arrived at as follows:

		cents
70 per cent of milk sold at 59 cents per pound of milk fat	equals	41.3
30 per cent of milk sold at 46.1 cents [10] per pound milk fat	equals	13.8
		55.1

---

[8] As milk and cream are shipped from Kern County to Los Angeles in trucks owned by dealers, it is not possible to get exact transportation costs by truck. While truck transportation costs may be somewhat less than by railroad, it is extremely doubtful whether the difference is as great as assumed above.

[9] It is understood that none of the plants in Kern County have been shipping market milk to Los Angeles during the past few months.

[10] Average price paid for manufacturing milk in Tulare County. Actually manufacturing milk may have a somewhat higher value in Los Angeles than in Tulare County because of lower transportation costs on the finished product.

The above estimate is on the conservative side. If transportation costs between Bakersfield and Los Angeles are higher than the 5 cents per pound of milk fat allowed and also country plant handling and cooling costs higher than the 3 cents allowed, then prices paid for market milk could have been that much higher without encouraging shipment from Kern County. In addition the premium of 1 to 2 cents a pound of milk fat for milk mechanically cooled on the farm should be added to the prices paid to producers in Kern County. Furthermore, if manufacturing milk in Los Angeles could have returned more than 46.1 cents per pound of milk fat the average price paid for all milk would be increased accordingly. Similarly, if the average surplus was less than 30 per cent of all milk produced, the larger proportion sold as manufacturing milk would have resulted in an increase in the average price for all milk received by producers. Actually, the average surplus of production and consumption for the four southern counties was much less in 1935 than 30 per cent. In that year 64,794,000 gallons of milk were distributed in the four counties. If the average fat test of this milk was 4 per cent it would have accounted for 22,891,000 pounds of milk fat as compared with a production of 27,756,000 pounds. The actual surplus for the year thus was 4,865,000 pounds or 17.5 per cent of production. It is probable, however, that the surplus during the first four months of 1936 was somewhat greater. Furthermore, all producers in the market do not participate in carrying the surplus. Some producers sell all their production as market milk, whereas others are only able to sell a proportion of their production as market milk.

While the low producer prices in Los Angeles prevailing during the latter half of 1935 and the first part of 1936 were the continued result of the conditions depicted above, three specific sets of conditions seem to have had somewhat more influence than others. In the first place, producers' organizations were too divided in their policies and objectives to cooperate together in demanding a higher price from distributors and in caring for the surplus collectively.

In the second place, if distributors had increased producer prices less than 11½ cents or to about 64 cents per pound of milk fat, they would either have had to reduce their margins or operate on a wider margin depending upon whether or not resale prices were increased. For instance, if producer prices were increased to 58 cents a pound of milk fat or approximately 1/2 cent a quart, distributors' retail margins would have been reduced 1/2 cent if they had continued selling milk at the same price as before. On the other hand, if they increased the retail and wholesale prices 1 full cent per quart, their margins would have been increased by 1/2 cent a quart. An increase in the producers' price to 64 cents was not justified economically as it would have encouraged the flow of milk from Kern and Tulare counties. Distributors were unwilling either to expand or contract their margins. Experience had shown that an expansion of margins would have stimulated price cutting and rebates. The average retail and wholesale margins during 1935 were only 6.4 cents and 3.0 cents a quart respectively -- considerably lower than during many previous years. A reduction of 1/2 cent a quart from these low margins would have resulted in operating losses. Retail and wholesale prices were reduced 1 full cent in February, 1936, resulting in a considerable reduction in distributors' margins. It is probable that if producers had been more strongly organized, or producer associations could have worked together, they could have received a price several cents higher than they actually received.

The third factor was and is the continued belief that production of milk in the four southern counties should be kept in line with consumption needs. There was a surplus of milk in 1935 and, in addition, shipment of dairy cows into the area increased tremendously over the previous year. This gave the appearance

that the prices paid to producers were sufficiently high to encourage an increase in production. Although there was a surplus in 1935, production was less and consumption greater than in 1934. As was pointed out in a previous section, it would seem that the belief that production and consumption in the four southern counties should be in approximate balance is open to question, as is also the problem of maintaining separate milk and cream sheds. There is some reason to believe that the soundest price policy for producers in the southern counties is to strive for a price for market milk just low enough to discourage shipment of milk from Kern and Tulare counties, and to sell or dispose of the surplus (however large or small) at the best possible prices. Such a policy, however, would require the cooperation of all producers in the area, for unless surplus is kept under strict control it can be a two-edged sword. It should not be possible for certain distributors to obtain part of the surplus and sell same as market milk at cut-rate prices.

Prices and Cost Factors.-- One of the most important single items of cost in market milk production is feed. The most important single item of feed cost is alfalfa. A large part of the alfalfa hay supply used in the four southern counties is produced in those counties and in the Imperial Valley. Because of the bulkiness of this product, Los Angeles is the only large market available and dairy producers are the main consumers. Alfalfa hay prices thus tend to move in close relation to prices received by market milk producers -- to rise and fall with market milk prices.

This is to a considerable extent responsible for the small degree of variation of buying prices of market milk in terms of feed since 1928. With the exception of the years 1930 and 1931, a pound of milk fat purchased between 62.7 and 66.9 pounds of feed (at wholesale prices) (table 8 and figure 7). At prices paid by producers, the number of pounds of feed purchasable with a pound of milk fat would be somewhat less, but the general trend would tend to be the same. In the two years 1930 and 1931, a pound of market milk purchased about 79 pounds of feed compared with an average of 64.7 pounds during the other six years of the period under review. The relatively high purchasing power during these two years was due to the fact that market milk prices did not start to decline until the middle of 1930 and showed no very serious decline until the middle of 1931, whereas feed prices began to decline early in 1930.

A large part of the decline in market milk prices was thus passed on by dairy producers to producers of feed. It does not follow, however, that because this relationship prevailed during the depression years, it will continue indefinitely. Prices of all farm products had declined tremendously so that alfalfa hay producers found that production of other types of farm products would not net them any more than alfalfa. However, if and as prices of other farm products increase more rapidly than those of alfalfa, many producers of alfalfa will turn to the production of these other products. The more limited supply resulting will tend to increase dairy feed costs. No consideration will be given at this point to the possible long-time effects upon the dairy industry in general and market milk producers in particular of the federal government's soil conservation program. It would seem that the ultimate effect of this program will be to increase supplies of alfalfa and the number of dairy cows in the United States as a whole. Whether any part of these increased alfalfa and other hay feeds will be available for the Los Angeles market, however, is problematical.

Another important item of cost in market milk production is labor. Data are not available on the trend of wages in the Los Angeles milk shed. The average wages paid to agricultural labor in California as a whole declined from $88 (without board) in 1928 to $48.75 in 1933, a decrease of about 45 per cent (table 9).

TABLE 8

Number of Pounds of Dairy Feed Purchasable with One Pound of Milk Fat and Receipts of Dairy Cows in Los Angeles County January, 1928 to April, 1936

Year and month	Buying price of market milk at Los Angeles	Wholesale price of dairy feed at Los Angeles		Number of pounds of feed purchasable with one pound of milk fat (on wholesale basis)	Dairy cows received in Los Angeles County
	1	2	3	4	5
	cents per pound of milk fat	dollars per ton	cents per pound	pounds	number
1928					
January	88.0	26.10	1.30	67.7	859
February	88.0	27.09	1.35	65.2	1,376
March	88.0	27.21	1.36	64.7	1,759
April	85.0	27.06	1.35	63.0	1,281
May	85.0	25.78	1.29	65.9	1,276
June	85.0	25.27	1.26	67.5	1,245
July	87.0	23.89	1.19	73.1	2,241
August	87.0	24.54	1.23	70.7	2,307
September	87.0	24.76	1.24	70.2	3,172
October	87.0	26.71	1.34	64.9	2,700
November	86.0	26.87	1.34	64.2	1,881
December	90.0	26.95	1.35	66.7	1,765
Average	87.0	26.02	1.30	66.9	1,821
1929					
January	90.0	30.12	1.51	59.6	1,610
February	87.5	31.98	1.60	54.7	444
March	88.0	31.56	1.58	55.7	731
April	88.0	26.80	1.34	65.7	3,660
May	88.0	25.50	1.28	68.8	4,080
June	87.0	24.91	1.25	69.6	2,420
July	87.0	24.89	1.24	70.2	1,694
August	90.0	23.85	1.19	75.6	2,876
September	90.0	26.00	1.30	69.2	2,653
October	90.0	26.17	1.31	68.7	2,161
November	90.0	26.34	1.32	68.2	1,733
December	84.0	29.01	1.45	57.9	1,745
Average	88.0	27.26	1.36	64.7	2,151
1930					
January	84.0	28.58	1.43	58.7	1,068
February	87.0	24.80	1.24	70.2	1,226
March	86.0	21.12	1.06	81.1	2,311
April	87.0	20.71	1.04	83.7	2,700
May	84.0	20.93	1.05	80.0	2,845
June	76.0	19.71	0.99	76.8	1,676
July	79.0	18.29	0.91	86.8	956
August	79.0	19.01	0.95	83.2	1,296
September	78.0	19.54	0.98	79.6	2,434
October	78.0	18.50	0.92	84.8	1,693
November	79.0	18.27	0.91	86.8	2,089
December	78.0	17.36	0.87	89.7	1,923
Average	81.0	20.57	1.03	78.6	1,874

(Table 8 continued on next page)

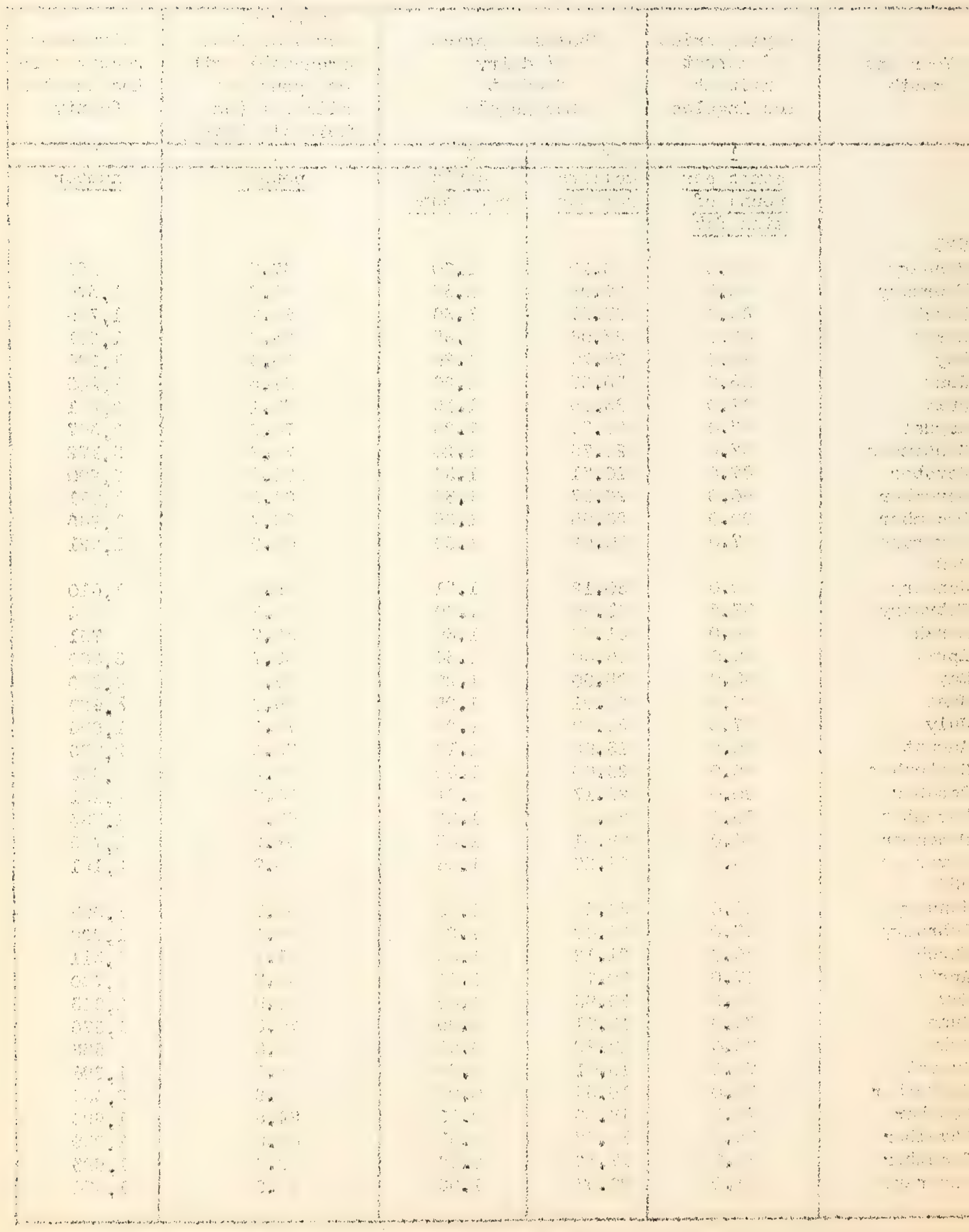


Table 8 continued.

Year and month	Buying price of market milk at Los Angeles	Wholesale price of dairy feed at Los Angeles		Number of pounds of feed purchasable with one pound of milk fat (on wholesale basis)	Dairy cows received in Los Angeles County
	1	2	3	4	5
	cents per pound of milk fat	dollars per ton	cents per pound	pounds	number
1931					
January	71.0	17.24	0.86	82.6	1,487
February	67.0	17.17	0.86	77.9	1,272
March	66.0	16.53	0.83	79.5	1,728
April	65.0	16.24	0.81	80.2	2,054
May	62.0	16.56	0.83	74.7	1,071
June	68.0	15.70	0.78	87.2	788
July	68.0	13.97	0.70	97.1	619
August	60.0	14.16	0.71	84.5	1,333
September	62.5	14.86	0.74	84.5	2,209
October	62.0	16.16	0.81	76.5	2.324
November	62.0	18.60	0.93	66.7	2,660
December	58.5	17.92	0.90	65.0	1,420
Average	64.0	16.26	0.81	79.0	1,580
1932					
January	52.5	17.36	0.87	60.3	1,208
February	50.5	17.37	0.87	58.0	1,216
March	50.0	16.24	0.81	61.7	1,399
April	36.0	13.61	0.68	52.9	915
May	40.0	13.36	0.67	59.7	540
June	41.0	12.58	0.63	65.1	572
July	34.0	11.48	0.57	59.6	356
August	33.3	12.16	0.61	54.6	380
September	52.5	13.28	0.66	79.5	1,938
October	51.8	13.41	0.67	77.3	1,016
November	52.8	13.63	0.68	77.6	2,009
December	50.0	13.89	0.69	72.5	1,215
Average	45.0	14.03	0.70	64.3	1,064
1933					
January	46.5	13.59	0.68	68.4	1,085
February	45.5	13.00	0.65	70.0	956
March	31.0	12.76	0.64	48.4	862
April	33.5	12.71	0.64	52.3	808
May	29.0	13.04	0.65	44.6	1,073
June	42.0	12.87	0.64	65.6	1,256
July	42.0	13.90	0.70	60.0	1,765
August	50.0	14.20	0.71	70.4	2,209
September	51.0	13.47	0.67	76.1	1,869
October	51.0	13.86	0.69	73.9	1,759
November	47.0	14.45	0.72	65.3	1,685
December	46.0	15.30	0.76	60.5	1,476
Average	43.0	13.60	0.68	63.2	1,400
1934					
January	46.0	15.57	0.78	59.0	809
February	46.0	14.93	0.75	61.3	1,105
March	46.0	14.04	0.70	65.7	1,402
April	47.0	13.74	0.69	68.1	2,364
May	47.0	14.55	0.73	64.4	1,673
June	49.0	15.06	0.75	65.3	1,596

(Table 8 continued on next page)

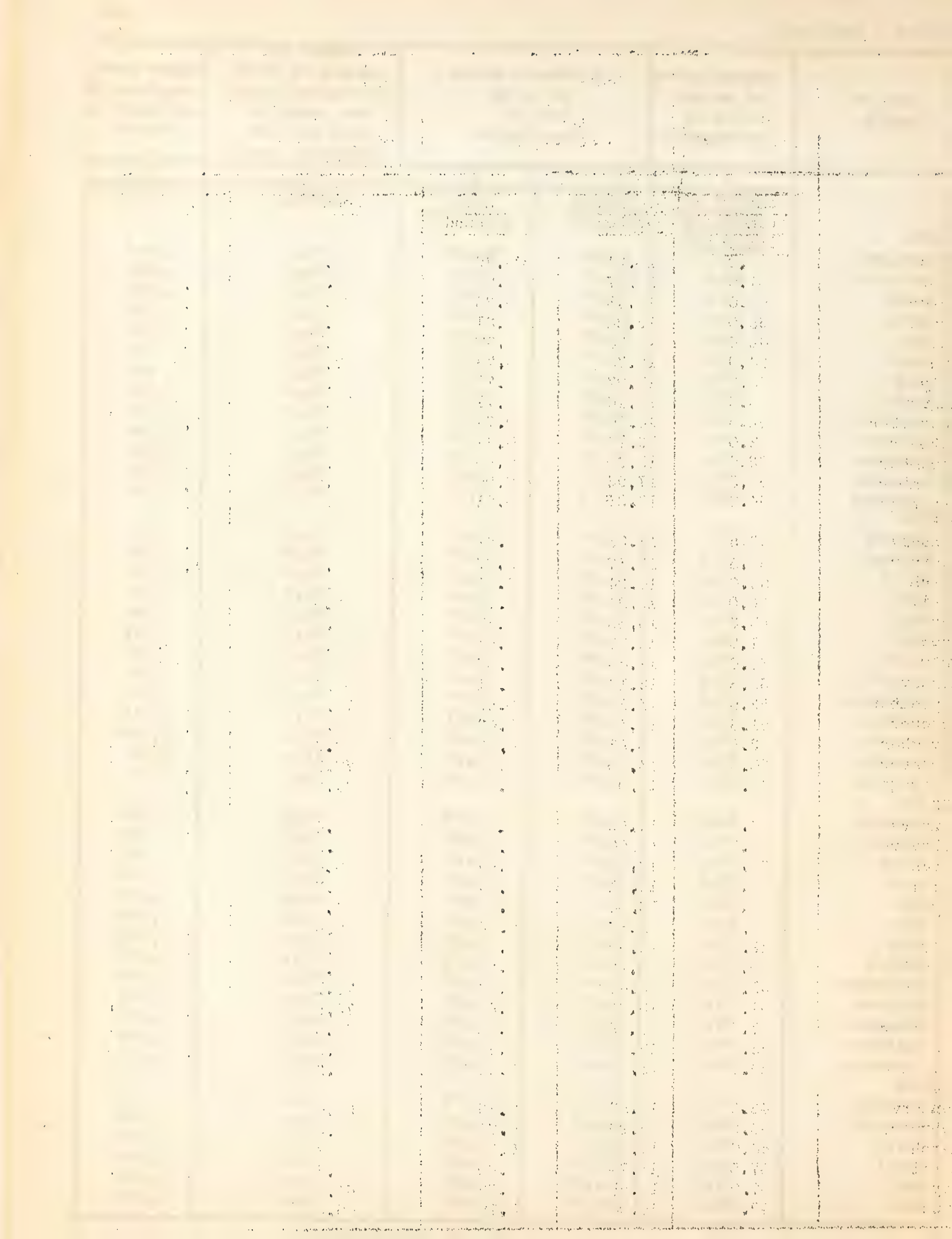


Table 8 continued.

Year and month	Buying price of market milk at Los Angeles	Wholesale price of dairy feed at Los Angeles		Number of pounds of feed purchasable with one pound of milk fat (on wholesale basis)	Dairy cows received in Los Angeles County
	1	2	3	4	5
	cents per pound of milk fat	dollars per ton	cents per pound	pounds	number
1934 (cont'd.)					
July	51.0	16.00	0.80	63.8	1,509
August	53.0	18.30	0.92	57.6	2,093
September	57.0	19.30	0.97	58.8	2,585
October	62.0	19.29	0.96	64.6	3,141
November	62.0	19.16	0.96	64.6	1,559
December	60.0	18.78	0.94	63.8	1,976
Average	52.0	16.56	0.83	62.7	1,818
1935					
January	60.0	17.84	0.89	67.4	2,633
February	59.0	15.88	0.79	74.7	3,052
March	52.0	16.25	0.81	64.2	3,302
April	50.0	16.67	0.83	60.2	2,649
May	50.5	17.07	0.85	59.4	2,672
June	51.5	16.17	0.81	63.6	1,749
July	52.5	15.10	0.76	69.1	2,595
August	52.5	14.45	0.72	72.9	2,832
September	52.5	14.78	0.74	70.9	2,874
October	52.5	14.69	0.78	67.3	3,395
November	54.8	16.85	0.84	65.2	3,410
December	55.0	17.54	0.88	62.5	3,342
Average	54.0	16.19	0.81	66.7	2,875
1936					
January	53.8	18.73	0.94	57.2	2,922
February	52.5	18.49	0.92	57.1	2,287
March	52.5	17.02	0.85	61.8	2,731
April	52.5	15.91	0.80	65.6	3,462

Sources of data:

Col. 1: Table 2.

Cols. 2 and 3: From data on wholesale prices of feed in Los Angeles compiled by the author. In computing the composite feed prices, the following weights were used: alfalfa, 78.5; barley, 6.3; wheat bran, 3.4; beet pulp, 2.9; cottonseed meal, 2.5; and copra, 6.4.

Col. 4: Col. 1 divided by col. 3.

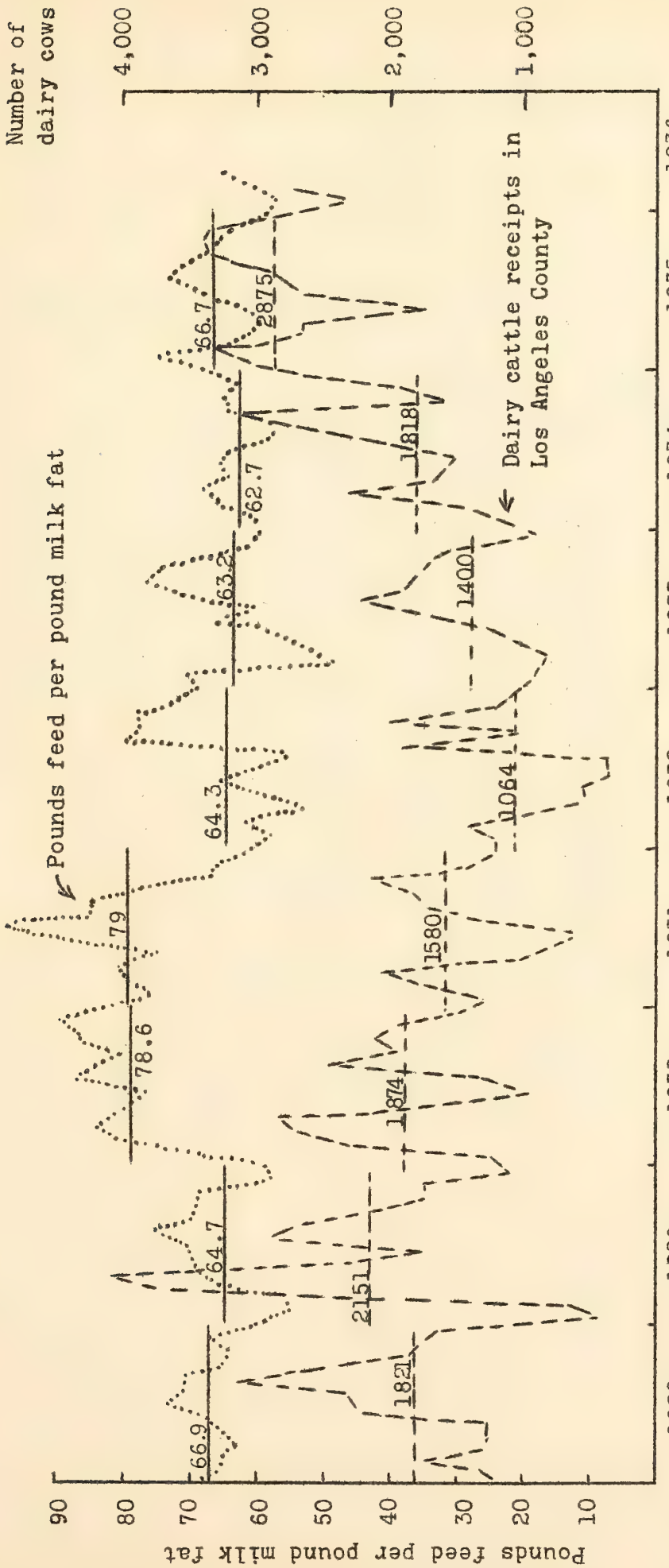


Fig. 7.-- Number of pounds of feed purchasable with one pound of milk fat and receipts of dairy cows in Los Angeles County.

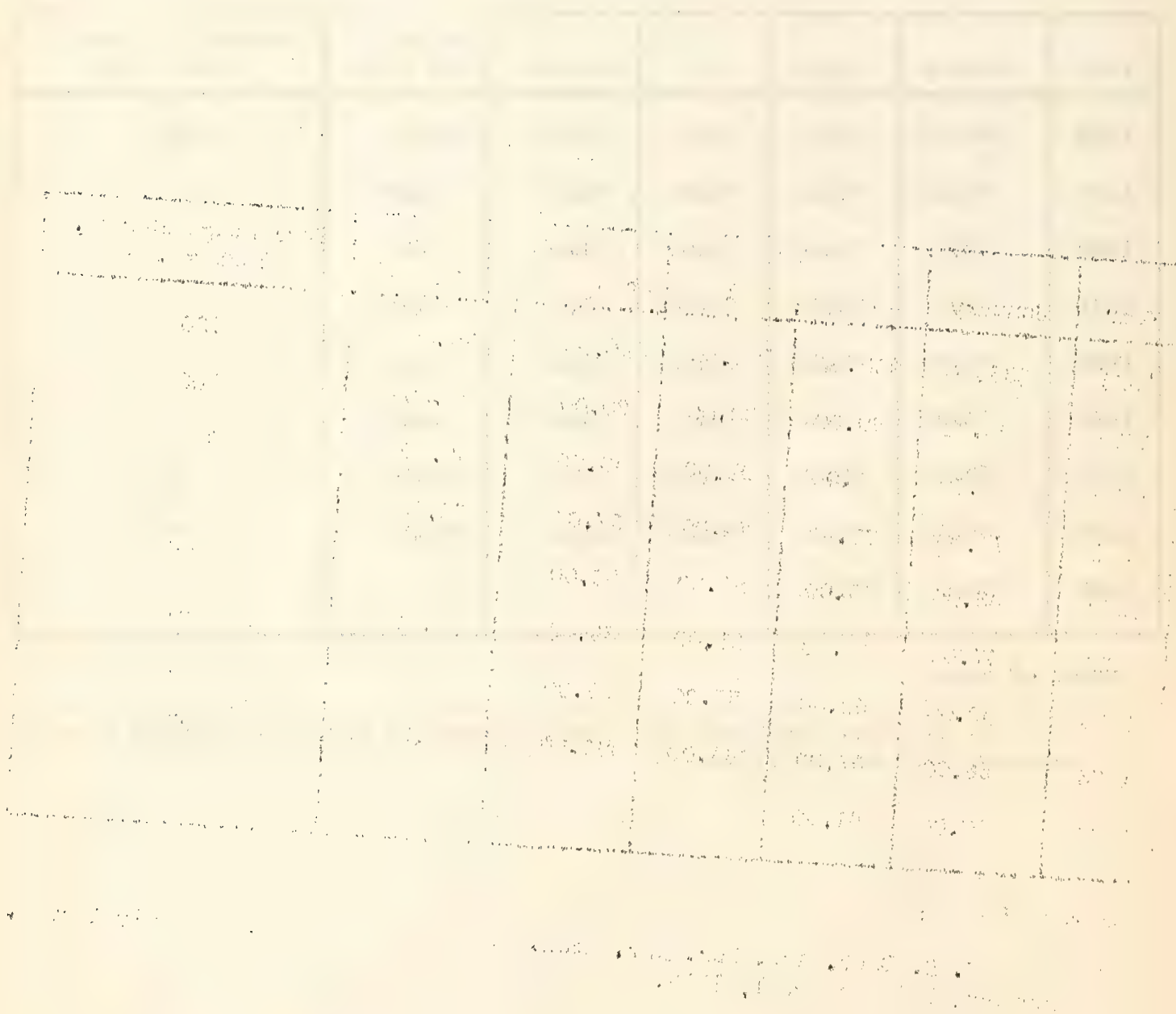
TABLE 9

Monthly Farm Wages (Without Board) in California

Year	January	April	July	October	Average for year	Percentage change, 1928 = 100
1928	$86.00	$88.00	$88.00	$90.00	$88.00	100
1929	90.00	90.00	90.00	90.00	90.00	102
1930	89.00	90.00	91.00	88.00	89.50	102
1931	78.00	78.00	74.00	67.00	74.25	84
1932	63.00	59.00	54.00	52.00	57.00	65
1933	47.00	44.00	51.00	53.00	48.75	55
1934	50.00	52.00	55.00	58.00	53.75	61
1935	56.00	57.00	$63.00	$62.00	$59.50	68
1936	$60.00	$61.50				

Source of data:

U. S. Dept. Agr. Bur. Agr. Econ. Crops and Markets. Monthly issues. January, 1928 to April, 1936.



Since 1933, however, wages have increased to $59.50 in 1935, an increase of about 22 per cent. Wages paid by dairy producers in the Los Angeles milk shed presumably would show a similar trend. Average prices received by producers in the four southern counties declined from 87 cents per pound of milk fat in 1928 to 43 cents in 1933, a decline of about 51 per cent or somewhat greater than the decline in wages. Average prices received by producers in 1935 were 54 cents a pound of milk fat or about 20 per cent higher than in 1933, indicating a lesser proportionate recovery in prices than in wages.

Notwithstanding the fact that producers were able to pass on a considerable proportion of the decrease in prices received by them, to labor in the form of lower wages, their purchasing power in terms of labor costs is less favorable than in 1928. Producers who utilized a large amount of family labor had to absorb most of the decline in prices in the form of reduced family income.

A fourth important item of cost is rent. Large numbers of dairymen in the four southern counties rent their farms. To the extent that they were able to get reductions of rent, they were successful in passing on part of the decline in market milk prices to their landlords. No data are available on the extent to which this was done. Here again there is no assurance that reductions in rent obtained will continue as long as prices received by producers of market milk are low. Much dairy land in southern California is suitable for the production of other agricultural products. If the prices of these products increase, landlords will have the option of renting their land to producers of these products, rather than to dairymen. The latter will either have to pay higher rents or move elsewhere. In either event, a stiffening of rents for dairy farms can be expected if prices of farm products generally continue to increase.

Dairy producers who owned their own farms had to absorb the lower prices of market milk in the form of lower or no returns on their investment and, in some instances, in losses. Dairy producers who owed mortgages on their farms were probably more severely hit than others. It was not always possible to obtain a reduction of principal and interest rates.

Another important production expense item is the cost of replacing cows. Only a small proportion of producers in the four southern counties produce their own replacement stock. The bulk of the dairy cows used are shipped in from other parts of the state or from other states. These cows are generally milked from three to four years before being sold as beef. The number of dairy cows shipped in annually seems to be very closely correlated to the average annual net price received by producers of market milk (table 8 and figure 7). The net price received by producers declined each year from 1929 to 1932. The average monthly receipts of cows in Los Angeles County declined each year during this period. In 1933 the net price received by producers was somewhat lower than during 1932 but the number of dairy cows received was somewhat higher than for the previous year. This increase of receipts in the face of a decline in net prices was probably due to the fact that replacements had been deferred to such an extent during the two previous years that dairymen were forced to replace the poorer cows in their herds. During 1934 and 1935 the average annual net prices received by dairymen increased. Dairy receipts also increased.

It is difficult to account for the tremendous increase in the average monthly receipts in 1935 as compared with 1934 (2,875 cows and 1,818 cows per month respectively) in view of the fact that the average annual net price in 1935 was only 53 cents as compared with 52 cents in 1934. It is probable that a partial explanation was that many dairy producers were forced to replace worn

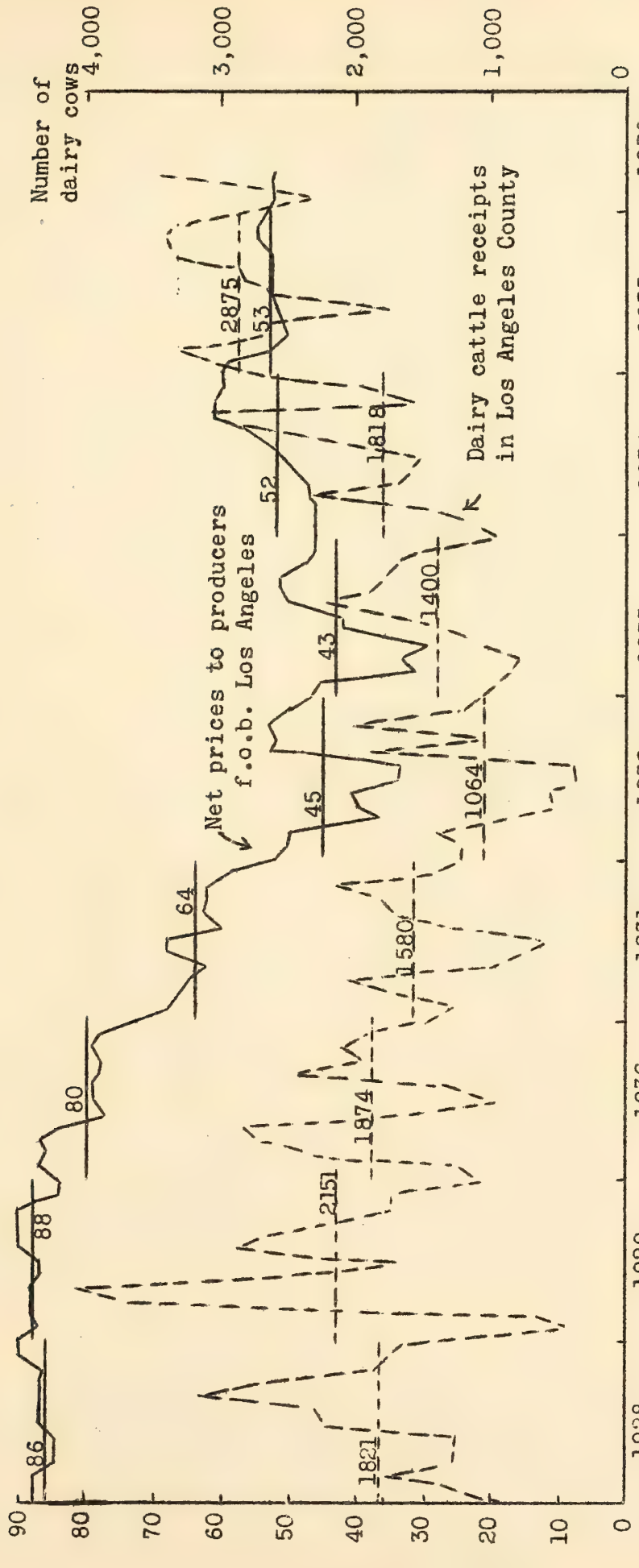
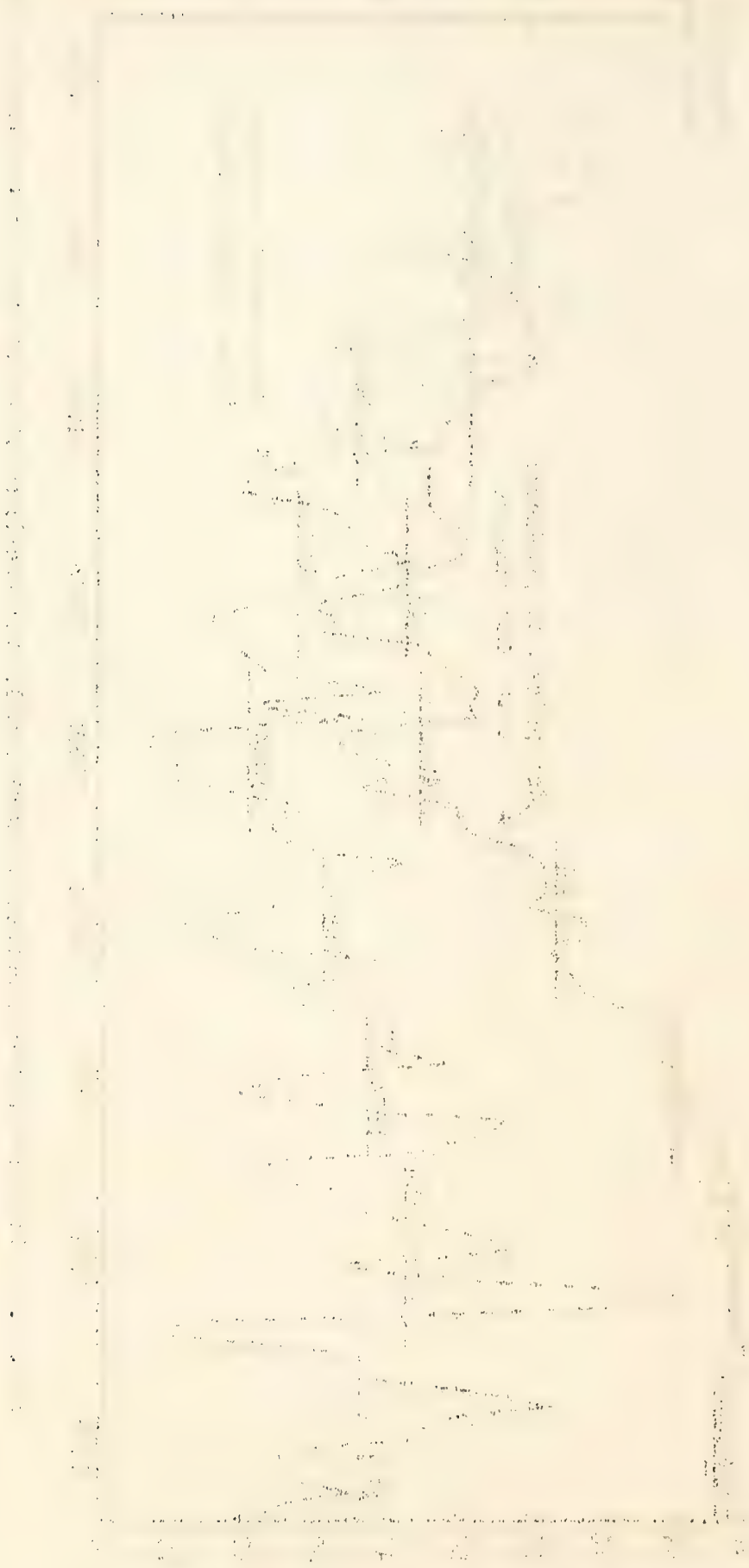


Fig. 8.-- Relation between prices of market milk and receipts of dairy cows in Los Angeles County.



out cows. It would seem that average replacements (or receipts) would average around 1,800 to 1,900 cows monthly. During the three years 1931 to 1933, monthly replacements (or receipts) averaged only about 1,350 cows. Another possible explanation is that finance companies and banks were somewhat more liberal in granting credit than they were during the three years 1931 to 1933. It is interesting to note that in spite of the big increase in average monthly receipts of dairy cows in Los Angeles County in 1935, the total production of milk fat in the four southern counties was somewhat less in 1935 than in 1934; 27,756,000 pounds in 1935 as compared with 28,117,000 pounds in 1934 (table 1).

There appears to be no correlation between the milk price-feed ratio and receipts of dairy cows (table 8 and figure 7). As was stated previously, the price-feed ratio (pounds of feed purchasable with 1 pound of milk fat) averaged around 64.7 cents for six years out of eight, whereas receipts of dairy cows varied considerably both up and down during those six years. In the two years when the price-feed ratio was high (1930 and 1931), receipts of dairy cows actually declined. It would appear then that it is the average level of net prices received by producers annually and the need for replacement rather than the milk price-feed ratio which determines the dairy cow receipts in the county. This is a reasonable conclusion in the light of the other conclusion that feed prices tend to vary in relation to market milk prices.

The above analysis indicates that the more important cost items, feed, labor, and rent in the Los Angeles milk shed, have been nearly as flexible during the depression years as have been market milk prices. Costs have been reduced as net prices were reduced. This fact, no doubt, explains in part why, in the face of such a marked reduction in prices, the total volume of production in the four southern counties was not reduced, but increased slightly. 11/

The question arises, however, as to whether cost items will continue to show a similar relation to prices as business conditions improve. It is generally conceded that business conditions have improved materially since 1933 and will continue to show improvement for several years to come. It seems probable that during the next few years, many of the cost items will tend to change with general business conditions rather than with changes in market milk prices. In other words, if prices of agricultural commodities increase in response to improved mass buying power, much land devoted during the depression to the production of alfalfa will be converted to the production of other farm products; similarly, some land in dairy farms will be used for the production of other products; and finally labor costs will tend to move with the general trend of wages. If prices of market milk move along with the general price level, well and good. If prices of market milk, however, lag behind the general price level, producers of market milk in the four southern counties will face difficult times during the next few years.

11/ It is not the purpose here to offer a full explanation for the failure of production of market milk in the four southern counties to decline as a result of the very low prices prevailing from 1932 onwards. A partial explanation is the fact that many of the more important cost items in market milk production declined along with prices to producers for market milk. A complete explanation of this phenomenon would require more extensive study than is possible in this report.

Because of all the disturbing factors mentioned above and especially because of the lack of cooperation among producers and producer organizations in the Los Angeles milk market, it seems highly improbable that prices of market milk will (without outside assistance) react any more readily to improved buying conditions in the immediate future than they have in the past year, during which producer prices have been lower than in any other major milk market in California. It is highly improbable, moreover, that producers will continue in the fortunate position of being able to shift a part of the burden of low prices on to important items of costs.